

# Acetylene, dissolved

## Safety Data Sheet P-4559

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.  
Date of issue: 01/01/1979 Revision date: 10/13/2016 Supersedes: 02/03/2016

### SECTION 1: Product and company identification

#### 1.1. Product identifier

Product form : Substance  
Name : Acetylene, dissolved  
CAS No : 74-86-2  
Formula : C<sub>2</sub>H<sub>2</sub>  
Other means of identification : Acetylen, ethine, ethyne, narycylene

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Industrial use. Use as directed.

#### 1.3. Details of the supplier of the safety data sheet

Praxair, Inc.  
10 Riverview Drive  
Danbury, CT 06810-6268 - USA  
T 1-800-772-9247 (1-800-PRA AIR) - F 1-716-879-2146  
[www.praxair.com](http://www.praxair.com)

#### 1.4. Emergency telephone number

Emergency number : Onsite Emergency: 1-800-645-4633

CHEMTREC, 24hr/day 7days/week  
— Within USA: 1-800-424-9300, Outside USA: 001-703-527-3887  
(collect calls accepted, Contract 17729)

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Flam. Gas 1 H220  
Dissolved gas H280

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS02

GHS04

Signal word (GHS-US) :

DANGER

Hazard statements (GHS-US) :

H220 - **EXTREMELY FLAMMABLE GAS**  
H231 - MAY REACT EXPLOSIVELY EVEN IN THE ABSENCE OF AIR AT ELEVATED PRESSURE AND/OR TEMPERATURE  
H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED  
OSHA-H01 - MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION  
CGA-HG04 - MAY FORM EXPLOSIVE MIXTURES WITH AIR

Precautionary statements (GHS-US) :

P202 - Do not handle until all safety precautions have been read and understood  
P210 - Keep away from Heat, Open flames, Sparks, Hot surfaces. - No smoking  
P271+P403 - Use and store only outdoors or in a well-ventilated place  
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely  
P381 - Eliminate all ignition sources if safe to do so  
P501 - Dispose of contents/container in accordance with container Supplier/owner instructions  
CGA-PG05 - Use a back flow preventive device in the piping  
CGA-PG13 - Fusible plugs in the top, bottom, or valve melt at 98 °C to 107 °C (208 °F to 224 °F). Do not discharge at pressures above 15 psig (103 kPa)



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CGA-PG06 - Close valve after each use and when empty  
 CGA-PG11 - Never put cylinders into unventilated areas of passenger vehicles  
 CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52 C (125 F)

### 2.3. Other hazards

Other hazards not contributing to the classification : For safety reasons, the acetylene is dissolved in acetone (CAS # 67-64-1; Flam. Liq. 2, Eye Irrit. 2, STOT SE 3) in the gas container. Vapor of the solvent is carried away as impurity when the acetylene is extracted from the gas container. The concentration of the solvent vapor in the gas is lower than the concentration limits to change the classification of the acetylene.

### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substance

Name	Product identifier	%
Acetylene, dissolved (Main constituent)	(CAS No) 74-86-2	100

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

First-aid measures after skin contact : The liquid may cause frostbite. For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105 F (41 C). Water temperature should be tolerable to normal skin. Maintain skin warming for at least 15 minutes or until normal coloring and sensation have returned to the affected area. In case of massive exposure, remove clothing while showering with warm water. Seek medical evaluation and treatment as soon as possible.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately.. Get immediate medical attention.

First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

Obtain medical assistance.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : See below. See CGA Pamphlet SB-4, *Handling Acetylene Cylinders in Fire Situations*, for further information.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : **EXTREMELY FLAMMABLE GAS.** If venting or leaking gas catches fire, do not extinguish flames. Flammable vapors may spread from leak, creating an explosive reignition hazard. Vapors can be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at locations distant from product handling point. Explosive atmospheres may linger. Before entering an area, especially a confined area, check the atmosphere with an appropriate device.

Explosion hazard : **EXTREMELY FLAMMABLE GAS.** Forms explosive mixtures with air and oxidizing agents.

Reactivity : No reactivity hazard other than the effects described in sub-sections below.



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### 5.3. Advice for firefighters

Firefighting instructions	: Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.
Protection during firefighting	: Compressed gas: asphyxiant. Suffocation hazard by lack of oxygen.
Special protective equipment for fire fighters	: Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.
Specific methods	: Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas containers to rupture. Cool endangered containers with water spray et from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems  Stop flow of product if safe to do so  Use water spray or fog to knock down fire fumes if possible  Continue water spray from protected position until container stays cool.
Other information	: Acetylene containers are provided with pressure relief devices designed to vent contents when exposed to elevated temperature.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. Evacuate area. Ensure adequate ventilation. Stop leak if safe to do so.
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#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent waste from contaminating the surrounding environment. Prevent soil and water pollution. Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

### 6.3. Methods and material for containment and cleaning up

No additional information available

### 6.4. Reference to other sections

See also sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Use only explosion-proof equipment  Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g. wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. For other precautions in using this product, see section 16.
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### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store only where temperature will not exceed 125°F (52°C). Post "No Smoking/No Open Flames" signs in storage and use areas. There must be no sources of ignition. Separate packages and protect against potential fire and/or explosion damage following appropriate codes and requirements (e.g., NFPA 30, NFPA 55, NFPA 70, and/or NFPA 221 in the U.S.) or according to requirements determined by the Authority Having Jurisdiction (AHJ). Always secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand when the container is not in use. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods. For other precautions in using this product, see section 16

**OTHER PRECAUTIONS FOR HANDLING, STORAGE, AND USE:** When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

Storage area : Acetylene trailers are designed and intended for outdoor use. Acetylene storage in excess of 2,500 cu ft (70.79 cubic meters) is prohibited in buildings and other occupancies.

### 7.3. Specific end use(s)

None.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Acetylene, dissolved (74-86-2)	
ACGIH	Not established
USA OSHA	Not established

### 8.2. Exposure controls

Appropriate engineering controls : An explosion-proof local exhaust system or a mechanical system is acceptable if it can prevent oxygen deficiency and keep hazardous fumes and gases below all applicable exposure limits in the worker's breathing area. During welding, ensure that there is adequate ventilation to keep worker exposure below applicable limits for fumes, gases, and other by-products of welding. Do not breathe fumes or gases. Short-term overexposure to fumes may cause dizziness, nausea, and dryness or irritation of the nose, throat, and eyes, or may cause other similar discomfort.

Eye protection : Wear safety glasses with side shields.

Skin and body protection : As needed for welding, wear hand, head, and body protection to help prevent injury from radiation and sparks. (See ANSI Z49.1.) At a minimum, this includes welder's gloves and protective goggles, and may include arm protectors, aprons, hats, and shoulder protection as well as substantial clothing.

Respiratory protection : When workplace conditions warrant respirator use, follow a respiratory protection program that meets OSHA 29 CFR 1910.134, ANSI Z88.2, or MSHA 30 CFR 72.710 (where applicable). Use an air-supplied or air-purifying cartridge if the action level is exceeded. Ensure that the respirator has the appropriate protection factor for the exposure level. If cartridge type respirators are used, the cartridge must be appropriate for the chemical exposure. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).

Thermal hazard protection : Wear cold insulating gloves when transfilling or breaking transfer connections.

Environmental exposure controls : Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

Other information : Consider the use of flame resistant anti-static safety clothing. Wear leather safety gloves and safety shoes when handling cylinders.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Gas



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Appearance	: Colorless, odorless gas.
Molecular mass	: 26 g/mol
Color	: Colorless.
Odor	: Garlic like. Poor warning properties at low concentrations.
Odor threshold	: No data available
pH	: Not applicable.
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: Not applicable.
Melting point	: -80.8 C (-113.4 F)
Freezing point	: No data available
Boiling point	: -84 C (-119.2 F)
Flash point	: -17 C (1.4 F)
Critical temperature	: 36 C (97 F)
Auto-ignition temperature	: 305 C (581 F)
Decomposition temperature	: 635 C (1175 F)
Flammability (solid, gas)	: 2.5 - 100 vol %
Vapor pressure	: 44 bar (623 psig)
Critical pressure	: 61.38 bar (875 psig)
Relative vapor density at 20 C	: No data available
Relative density	: Not applicable.
Density	: 0.0012 g/cm (at 0 C)
Relative gas density	: 0.9
Solubility	: Water: 1185 mg/l
Log Pow	: 0.37
Log Kow	: Not applicable.
Viscosity, kinematic	: Not applicable.
Viscosity, dynamic	: Not applicable.
Explosive properties	: Not applicable.
Oxidizing properties	: None.
Explosion limits	: No data available

### 9.2. Other information

Sublimation point	: -83.3 C
Gas group	: Dissolved gas

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

### 10.2. Chemical stability

Dissolved in a solvent supported in a porous mass. Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of hazardous reactions

May react explosively even in the absence of air. May decompose violently at high temperature and/or pressure or in the presence of a catalyst. Can form explosive mixture with air. May react violently with oxidants.

### 10.4. Conditions to avoid

High temperature. High pressure. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

### 10.5. Incompatible materials

Forms explosive acetylides with copper, silver and mercury. Do not use alloys containing more than 65% copper. Air, Oxidizer. Do not use alloys containing more than 43% silver.



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### 10.6. Hazardous decomposition products

Thermal decomposition or burning may produce carbon monoxide, carbon dioxide, and hydrogen. The welding and cutting process may form reaction products such as carbon monoxide and carbon dioxide. Other decomposition products of normal operation originate from the volatilization, reaction, or oxidation of the material being worked.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified pH: Not applicable.
Serious eye damage/irritation	: Not classified pH: Not applicable.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : No known ecological damage caused by this product.

### 12.2. Persistence and degradability

Acetylene, dissolved (74-86-2)	
Persistence and degradability	Will rapidly degrade by indirect photolysis in air. Will not undergo hydrolysis.

### 12.3. Bioaccumulative potential

Acetylene, dissolved (74-86-2)	
Log Pow	0.37
Log Kow	Not applicable.
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

### 12.4. Mobility in soil

Acetylene, dissolved (74-86-2)	
Mobility in soil	No data available.
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

### 12.5. Other adverse effects

Effect on ozone layer	: No known effects from this product
Effect on the global warming	: No known effects from this product

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

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### SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1001 Acetylene, dissolved, 2.1  
 UN-No.(DOT) : UN1001  
 Proper Shipping Name (DOT) : Acetylene, dissolved  
 Hazard labels (DOT) : 2.1 - Flammable gas



DOT Special Provisions (49 CFR 172.102) : N86 - UN pressure receptacles made of aluminum alloy are not authorized  
 N88 - Any metal part of a UN pressure receptacle in contact with the contents may not contain more than 65% copper, with a tolerance of 1%

#### Additional information

Emergency Response Guide (ERG) Number : 116 (UN1001)  
 Other information : No supplementary information available.  
 Special transport precautions : Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers:  
 - Ensure there is adequate ventilation. - Ensure that containers are firmly secured. - Ensure cylinder valve is closed and not leaking. - Ensure valve outlet cap nut or plug (where provided) is correctly fitted. - Ensure valve protection device (where provided) is correctly fitted.

#### Transport by sea

UN-No. (IMDG) : 1001  
 Proper Shipping Name (IMDG) : Acetylene, dissolved  
 Class (IMDG) : 2 - Gases  
 MFAG-No : 116

#### Air transport

UN-No. (IATA) : 1001  
 Proper Shipping Name (IATA) : Acetylene, dissolved  
 Class (IATA) : 2  
 Civil Aeronautics Law : Gases under pressure/Gases flammable under pressure

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Acetylene, dissolved (74-86-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes	Sudden release of pressure hazard Reactive hazard Fire hazard
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All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR 372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.



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### 15.2. International regulations

#### CANADA

##### Acetylene, dissolved (74-86-2)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

##### Acetylene, dissolved (74-86-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### 15.2.2. National regulations

##### Acetylene, dissolved (74-86-2)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the Japanese ENCS (Existing New Chemical Substances) inventory  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on N IoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on CICR (Turkish Inventory and Control of Chemicals)

### 15.3. US State regulations

#### Acetylene, dissolved(74-86-2)

U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm



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#### SECTION 16: Other information

##### Other information

: When using this product in welding and cutting, read and understand the manufacturer's instructions and the precautionary label on the product. Ask your welding products supplier for a copy of Praxair's free safety booklet, P-2035, Precautions and Safe Practices for Gas Welding, Cutting, and Heating, and for other manufacturers' safety publications. For a detailed treatment, get ANSI 49.1, Safety in Welding, Cutting, and Allied Processes, published by the American Welding Society (AWS), [www.aws.org](http://www.aws.org). Order AWS documents from Global Engineering Documents, [global.ihs.com](http://global.ihs.com). Arcs and sparks can ignite combustible materials. Prevent fires. Refer to NFPA 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hotwork. Do not strike an arc on the container. The defect produced by an arc burn may lead to container rupture

Fumes and gases produced during welding and cutting processes can be dangerous to your health and may cause serious lung disease. KEEP YOUR HEAD OUT OF FUMES. DO NOT BREATHE FUMES AND GASES. Use enough ventilation, local exhaust, or both to keep fumes and gases from your breathing zone and the general area. Short-term overexposure to fumes may cause dizziness, nausea, and dryness or irritation of the nose, throat, and eyes; or may cause other similar discomfort. Contaminants in the air may add to the hazard of fumes and gases

When you mix two or more chemicals, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product. Before using any plastics, confirm their compatibility with this product

Praxair asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information

The opinions expressed herein are those of qualified experts within Praxair, Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use are not within the control of Praxair, Inc, it is the user's obligation to determine the conditions of safe use of the product

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##### NFPA health hazard

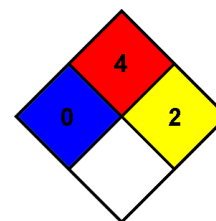
: 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

##### NFPA fire hazard

: 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.

##### NFPA reactivity

: 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.





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### HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur  
Flammability : 4 Severe Hazard  
Physical : 2 Moderate Hazard

SDS US (GHS HazCom 2012) - Praxair

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*



## SAFETY DATA SHEET

### 1. Product And Company Identification

SDS ID: SDS 501  
 PRODUCT NAME: Prestone® Antifreeze/Coolant  
 PRODUCT NUMBER: AF2000X, AF2000L, AF2050, AF2055, 72025, 71605, 71621, PRES04C, AF2000UK, AF2000PL, AF2000-1KL, AF2000LRU, AF2000RU, 65069, AF2000/GF, AF2000/GFC, AF2055/GF, AF2000-1KL/GF, AF2000/GXF, AF2000/GXF-HT, 71621/GF, 71621/GFC, 71621/GFC3  
 FORMULA NUMBER: YA956BY, YA956BY-B, YA956BY-ED, YA956BY-ED-B, YA-956BY-GLY, YA-992

MANUFACTURER: Prestone Products Corporation  
 Danbury, CT 06810-5109

CANADIAN OFFICE: FRAM Group (Canada), Inc.  
 Mississauga, Ontario L5L 3S6

MEDICAL EMERGENCIES AND ALL OTHER INFORMATION PHONE NUMBER:

(800)890-2075 (in the US)

(800)668-9349 (in Canada)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US)

CANUTEC (613)996-6666 (in Canada)

SDS DATE OF PREPARATION/REVISION: 09/24/15

PRODUCT USE: Automobile Antifreeze – consumer product

RESTRICTIONS ON USE: None identified

### 2. Hazards Identification

**GHS/HAZCOM 2012 Classification:**

Health	Physical
Acute Toxicity Category 4 (oral) Specific Target Organ Toxicity – Repeated Exposure Category 2 Toxic to Reproduction Category 2	Not Hazardous

**Label Elements**



**WARNING!**

H302 Harmful if swallowed.

H361d Suspected of damaging the unborn child.

H373 May cause damage to kidneys through prolonged or repeated exposure.

**Prevention:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe mist or vapors.

P264 Wash exposed skin thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.



P280 Wear protective gloves.

**Response:**

P301 + P312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.

P330 Rinse mouth.

P308 + P313 IF exposed or concerned: Get medical advice.

**Disposal:**

P405 Store locked up.

P501 Dispose of contents and container in accordance with local and national regulations.

### 3. Composition/Information On Ingredients

Component	CAS No.	Amount
Ethylene Glycol	107-21-1	75-95%
2-Ethyl Hexanoic Acid, Sodium Salt	19766-89-3	1-5%
Neodecanoic Acid, Sodium Salt	31548-27-3	1-5%
Diethylene Glycol	111-46-6	0-5%

The exact concentrations are a trade secret.

### 4. First Aid Measures

**INHALATION:** Remove the victim to fresh air. If breathing has stopped administer artificial respiration. If breathing is difficult, have medical personnel administer oxygen. Get medical attention.

**SKIN CONTACT:** Remove contaminated clothing. Immediately wash contacted area thoroughly with soap and water. If irritation persists, get medical attention.

**EYE CONTACT:** Immediately flush eyes with large amounts of water for 15 minutes. Get medical attention if irritation persists.

**INGESTION:** Seek immediate medical attention. Immediately call local poison control center or go to an emergency department. Never give anything by mouth to or induce vomiting in an unconscious or drowsy person.

**MOST IMPORTANT SYMPTOMS:** May cause eye irritation. Inhalation of mists may cause nose and throat irritation and nervous system effects. Ingestion may cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, malaise, blurring of vision, irritability, back pain, decrease in urine output, kidney failure, and central nervous system effects.

**INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED:** Seek immediate medical attention for large ingestions.

**NOTES TO PHYSICIAN:** The principal toxic effects of ethylene glycol, when swallowed, are kidney damage and metabolic acidosis. The combination of metabolic acidosis, an osmol gap and oxalate crystals in the urine is evidence of ethylene glycol poisoning. Pulmonary edema with hypoxemia has been described in a number of patients following poisoning with ethylene glycol. Respiratory support with mechanical ventilation may be required. There may be cranial nerve involvement in the late stages of toxicity from swallowed ethylene glycol. In particular, effects have been reported involving the seventh, eighth, and ninth cranial nerves, presenting with bilateral facial paralysis, diminished hearing and dysphagia.

Ethanol is antidotal and its early administration may block the formation of nephrotoxic metabolites of ethylene glycol in the liver. The objective is to rapidly achieve and maintain a blood ethanol level of approximately 100 mg/dl by giving a loading dose of ethanol followed by a maintenance dose. Intravenous administration of ethanol is the preferred route. Ethanol blood levels should be checked frequently. Hemodialysis may be required. 4-Methyl pyrazole (Fomepizole®), a potent inhibitor of alcohol dehydrogenase, has been used therapeutically to decrease the metabolic consequences of ethylene glycol poisoning. Fomepizole® is easier to use clinically than ethanol, does not cause CNS depression or hypoglycemia and requires less



monitoring than ethanol. Additional therapeutic modalities which may decrease the adverse consequences of ethylene glycol metabolism are the administration of both thiamine and pyridoxine. As there are complicated and serious overdoses, we recommend you consult with the toxicologists at your poison control center.

#### 5. Firefighting Measures

**SUITABLE EXTINGUISHING MEDIA:** For large fires, use alcohol type or all-purpose foams. For small fires, use water spray, carbon dioxide or dry chemical.

**SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:** A solid stream of water or foam directed into hot, burning liquid can cause frothing. Burning may produce carbon monoxide and carbon dioxide.

**SPECIAL FIRE FIGHTING PROCEDURES:** Do not spray pool fires directly. Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

#### 6: Accidental Release Measures

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** Wear appropriate protective clothing and equipment (See Section 8).

**METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP:** Collect with absorbent material and place in appropriate, labeled container for disposal or, if permitted flush spill area with water.

#### 7. Handling and Storage

**PRECAUTIONS FOR SAFE HANDLING:**

Harmful or Fatal if Swallowed. Do not drink antifreeze or solution. Avoid eye and prolonged or repeated skin contact. Avoid breathing vapors or mists. Wash exposed skin thoroughly with soap and water after use. Do not store in opened or unlabeled containers. Keep container away from open flames and excessive heat. Do not reuse empty containers unless properly cleaned. Empty containers retain product residue and may be dangerous. Do not cut, weld, drill, etc. containers, even empty.

Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without any obvious ignition sources. Published "autoignition" or "ignition" temperatures cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Use of this product in elevated temperature applications should be thoroughly evaluated to assure safe operating conditions.

**CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:** Store away from excessive heat and oxidizers.

**NFPA CLASSIFICATION:** IIIIB

#### 8. Exposure Controls / Personal Protection

**EXPOSURE GUIDELINES**

CHEMICAL	EXPOSURE LIMIT
Ethylene Glycol (as aerosol)	100 mg/m <sup>3</sup> Ceiling ACGIH TLV
2-Ethyl Hexanoic Acid, Sodium Salt	None Established
Neodecanoic Acid, Sodium Salt	None Established
Diethylene Glycol	10 mg/m <sup>3</sup> TWA AIHA WEEL



**VENTILATION:** Use general ventilation or local exhaust as required to maintain exposures below the occupational exposure limits.

**RESPIRATORY PROTECTION:** For operations where the TLV is exceeded a NIOSH approved respirator with organic vapor cartridges and dust/mist prefilters or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select and use in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

**GLOVES:** Chemical resistant gloves such as neoprene or PVC where contact is possible.

**EYE PROTECTION:** Splash-proof goggles.

**OTHER PROTECTIVE EQUIPMENT/CLOTHING:** Appropriate protective clothing as needed to minimize skin contact.

### 9. Physical and Chemical Properties

APPEARANCE:	Yellow liquid	ODOR:	Characteristic odor
ODOR THRESHOLD:	None	pH:	8.7-9.2
MELTING/FREEZING POINT:	-34°F (-36.6°C) – -36°F (-37.7°C)	BOILING POINT/RANGE:	327°F (164°C) – 340°F (171.1°C)
FLASH POINT:	254 °F (123 °C) TOC >230 °F (>110 °C) Setflash	EVAPORATION RATE:	Not determined
FLAMMABILITY (SOLID, GAS)	Not Applicable	FLAMMABILITY LIMITS:	LEL: Not determined UEL: Not determined
VAPOR PRESSURE:	<0.06 mm Hg @20°C	VAPOR DENSITY:	2.1
RELATIVE DENSITY:	1.07-1.14	SOLUBILITIES	Water: Complete
PARTITION COEFFICIENT (n-octanol/water)	Not determined	AUTOIGNITION TEMPERATURE:	Not determined
DECOMPOSITION TEMPERATURE:	Not determined	VISCOSITY:	Not determined

### 10. Stability and Reactivity

**REACTIVITY:** Normally unreactive

**CHEMICAL STABILITY:** Stable

**POSSIBILITY OF HAZARDOUS REACTIONS:** Reaction with strong oxidizers will generate heat.

**CONDITIONS TO AVOID:** None known

**INCOMPATIBLE MATERIALS:** Avoid strong bases at high temperatures, strong acids, strong oxidizing agents, and materials reactive with hydroxyl compounds.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide.

### 11. Toxicological Information

**POTENTIAL HEALTH EFFECTS:**

**ACUTE HAZARDS:**

**INHALATION:** May cause irritation of the nose and throat with headache, particularly from mists. High vapor concentrations caused, for example, by heating the material in an enclosed and poorly ventilated workplace, may produce nausea, vomiting,



headache, dizziness and irregular eye movements.

SKIN CONTACT: No evidence of adverse effects from available information.

EYE CONTACT: Liquid, vapors or mist may cause discomfort in the eye with persistent conjunctivitis, seen as slight excess redness or conjunctiva. Serious corneal injury is not anticipated.

INGESTION: May cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, malaise, blurring of vision, irritability, back pain, decrease in urine output, kidney failure, and central nervous system effects, including irregular eye movements, convulsions and coma. Cardiac failure and pulmonary edema may develop. Severe kidney damage which may be fatal may follow the swallowing of ethylene glycol. A few reports have been published describing the development of weakness of the facial muscles, diminishing hearing, and difficulty with swallowing, during the late stages of severe poisoning.

CHRONIC EFFECTS: Prolonged or repeated inhalation exposure may produce signs of central nervous system involvement, particularly dizziness and jerking eye movements. Prolonged or repeated skin contact may cause skin sensitization and an associated dermatitis in some individuals. Ethylene glycol has been found to cause birth defects in laboratory animals. The significance of this finding to humans has not been determined. 2-Ethyl Hexanoic Acid, Sodium Salt is suspected of causing developmental effects based on animal data.

CARCINOGENICITY LISTING: None of the components of these products is listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH or OSHA.

**ACUTE TOXICITY VALUES:**

Ethylene Glycol: LD50 Oral Rat: 4700 mg/kg  
LD50 Skin Rabbit: 9530 mg/kg

Diethylene Glycol: LD50 Oral Rat: 12,565 mg/kg  
LD50 Skin Rabbit: 11,890 mg/kg

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH: Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses. Also, in a preliminary study to assess the effects of exposure of pregnant rats and mice to aerosols at concentrations 150, 1,000 and 2,500 mg/m<sup>3</sup> for 6 hours a day throughout the period of organogenesis, teratogenic effects were produced at the highest concentrations, but only in mice. The conditions of these latter experiments did not allow a conclusion as to whether the developmental toxicity was mediated by inhalation of aerosol, percutaneous absorption of ethylene glycol from contaminated skin, or swallowing of ethylene glycol as a result of grooming the wetted coat. In a further study, comparing effects from high aerosol concentration by whole-body or nose-only exposure, it was shown that nose-only exposure resulted in maternal toxicity (1,000 and 2,500 mg/m<sup>3</sup>) and developmental toxicity in with minimal evidence of teratogenicity (2,500 mg/m<sup>3</sup>). The no-effects concentration (based on maternal toxicity) was 500 mg/m<sup>3</sup>. In a further study in mice, no teratogenic effects could be produced when ethylene glycol was applied to the skin of pregnant mice over the period of organogenesis. The above observations suggest that ethylene glycol is to be regarded as an animal teratogen; there is currently no available information to suggest that ethylene glycol caused birth defects in humans. Cutaneous application of ethylene glycol is ineffective in producing developmental toxicity; exposure to high aerosol concentration is only minimally effective in producing developmental toxicity; the major route for producing developmental toxicity is perorally.

Two chronic feeding studies, using rats and mice, have not produced any evidence that ethylene glycol causes dose-related increases in tumor incidence or a different pattern of tumors compared with untreated controls. The absence of carcinogenic potential for ethylene glycol has been supported by numerous invitro genotoxicity studies showing that it does not produce mutagenic or clastogenic effects. This product contains less than 0.3% tolytriazole which has demonstrates mutagenic activity in a bacterial test system. A correlation has been established between mutagenic activity and carcinogenic activity for many chemicals. Tolytriazole has not been identified as a carcinogen or probable carcinogen by NTP, IARC or OSHA.

In a study of Wistar rats, adverse developmental results were reported at a dose of 100 mg / kg of body weight for 2-Ethyl Hexanoic Acid, Sodium Salt.



## 12. Ecological Information

### ECOTOXICITY:

Ethylene Glycol: LC50 Fathead Minnow <10,000 mg/L/96 hr.  
 EC50 Daphnia Magna 100,000 mg/L/48 hr.  
 Bacterial (*Pseudomonas putida*): 10,000 mg/l  
 Protozoa (*Entosiphon sulcatum* and *Uronema parduczi*; Chatton-Lwoff) : >10,000 mg/l  
 Algae (*Microcystis aeruginosa*): 2,000 mg/l  
 Green algae (*Scenedesmus quadricauda*) : >10,000 mg/l  
 Diethylene Glycol: LC50 western mosquitofish >32,000 mg/L/96 hr.

### PERSISTENCE AND DEGRADABILITY:

Ethylene Glycol is readily biodegradable (97-100% in 2-12 days). Diethylene glycol is readily biodegradable (>70% in 19 days).

### BIOACCUMULATIVE POTENTIAL:

Ethylene glycol: A BCF of 10, reported for ethylene glycol in fish, Golden ide (*Leuciscus idus melanotus*), after 3 days of exposure suggests the potential for bio concentration in aquatic organisms is low.  
 Diethylene glycol: An estimated BCF of 3 suggests the potential for bio concentration in aquatic organisms is low.

MOBILITY IN SOIL: Ethylene glycol and diethylene glycol are highly mobile in soil.

OTHER ADVERSE EFFECTS: None known

## 13. Disposal Considerations

Dispose of product in accordance with all local, state/provincial and federal regulations.

## 14. Transport Information

U.S. DOT HAZARD CLASSIFICATION: Not Regulated (unless package contains a reportable quantity)

Note: IF A SHIPMENT OF A REPORTABLE QUANTITY (5,260 LBS/553 GAL.) IN A SINGLE PACKAGE IS INVOLVED, THE FOLLOWING INFORMATION APPLIES:

PROPER SHIPPING NAME: RQ, Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol)

UN NUMBER: UN3082

PACKING GROUP: III

LABELS REQUIRED: Class 9

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION: Not Regulated

CANADIAN TDG CLASSIFICATION: Not Regulated

## 15. Regulatory Information

EPA SARA 311/312 HAZARD CLASSIFICATION: Acute health, chronic health

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Ethylene Glycol	107-21-1	75-95%
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**PROTECTION OF STRATOSPHERIC OZONE:** This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

**CERCLA SECTION 103:** Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for this product, based on the RQ for Ethylene Glycol (95% maximum) of 5,000 lbs, is 5,260 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**CALIFORNIA PROPOSITION 65:** This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects):

Ethylene Glycol	107-21-1	75-95%	Developmental
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**EPA TSCA INVENTORY:** All of the components of this material are listed on or exempt from the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

**CANADIAN ENVIRONMENTAL PROTECTION ACT:** All of the ingredients are listed on or exempt from the Canadian Domestic Substances List.

**EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS):** All of the ingredients are listed on or exempt from the EINECS inventory.

**JAPAN:** All of the ingredients of this product are listed on or exempt from the Japanese Existing and New Chemical Substances (MITI) List.

**AUSTRALIA:** All of the ingredients of this product are listed on or exempt from the Australian Inventory of Chemical Substances.

**KOREA:** All of the ingredients of this product are listed on or exempt from the Korean Existing Chemical List (KECL).

**PHILIPPINES:** All of the ingredients of this product are listed on or exempt from the Philippine Inventory of Chemical and Chemical Substance (PICCS)

**CHINA:** All of the ingredients of this product are listed on or exempt from the Inventory of Existing Chemical Substance in China (IECSC).

<b>16. Other Information</b>
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NFPA RATING (NFPA 704) - FIRE: 1      HEALTH: 2      INSTABILITY: 0

**REVISION SUMMARY:** Section 15: Chemical inventories, California Proposition 65.

SDS Date of Preparation/Revision: September 24, 2015

This SDS is directed to professional users and bulk handlers of the product. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations.

While Prestone Products Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data are not to be taken as a warranty or representation for which Prestone Products Corporation assumes legal responsibility. They are offered solely for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.



**SDS501**  
**PRESTONE® ANTIFREEZE/COOLANT**  
**Date Prepared: 09/24/2015**

If more information is needed, please contact:

Prestone Products Corporation  
69 Eagle Road  
Danbury CT 06810  
(800) 890-2075

# Safety Data Sheet

## Section 1: Identification

**Product identifier****Product form: Mixture****Product name: Bio-Clean****Intended use of the product****Intended use: To biodegrade organic waste****Responsible party****Superior BioSolutions LLC****7352 Darlin Ct. Unit 1****Dane, WI 53529****800-553-5573****Emergency telephone number****Manufacturer: 800.553.5573****Hours of operaton: 8:00am – 5:00pm CST**

## Section 2: Hazards Identification

**May cause eye irritation, 2B**

## Section 3: Composition/Information on Ingredients

**Mixture****Active ingredients: Amylase, Cellulase, Lipase and Protease enzymes and non-pathogenic bacteria.****Exact percentages and full ingredients list are Trade Secrets.**

## Section 4: First Aid Measures

**Description of first aid measures****Eye: IF in eyes: Rinse with water**

## **Section 5: Fire-Fighting Measures**

### **Extinguishing media**

**Suitable extinguishing media: any**

**Unsuitable extinguishing media: none**

### **Special hazards arising from the mixture**

**Unusual fire or explosion hazards: None**

**Reactivity/incompatible materials: None**

### **Advice for firefighters**

**No special procedures or gear required.**

## **Section 6: Accidental Release Measures**

### **Personal precautions, protective equipment and emergency procedures**

**None**

### **Environmental precautions**

**None required**

### **Methods and material for containment and cleaning up**

**Sweep it up, return to container**

## **Section 7: Handling and Storage**

### **Precautions for safe handling**

**Handling: No special precautions required**

### **Conditions for safe storage, including any incompatibilities**

**Storage: For maximum self life store in a cool, dry place**

## **Section 8: Exposure Controls/Personal Protection**

### **Control parameters**

**None**

### **Exposure controls**

**None**

## **Section 9: Physical and Chemical Properties**

### **Information on basic physical and chemical properties**

**Physical state: Dry powder**

**Color: Tan**

**Odor: Characteristic. Mild**

**pH: Not relevant**

**Flash point: Data lacking**

**Auto-ignition temperature: Data lacking**

**Decomposition Temp.: Data lacking**

**Flammability: NFPA 1**

**Solubility: Mostly but not completely water soluble**

**Explosive properties: None known**

**Oxidizing properties: Not an oxidizer**

**Explosive limits: No data available**

## **Section 10: Stability and Reactivity**

**Reactivity: No dangerous reactions known when used as directed**

**Chemical stability: Stable**

**Possibility of hazardous reactions: Hazardous polymerization will not occur**

**Conditions to avoid: None known**

**Incompatible Materials: None known**

**Hazardous decomposition products: None known**

## **Section 11: Toxicological Information**

**Information on toxicological effects**

**Not classified**

**Eye contact: Prolonged exposure may result in irritation**

## **Section 12: Ecological Information**

**The commercial strength version of this product is used by wastewater treatment plants to degrade organic waste.**

### **Section 13: Disposal Considerations**

Due to the product's long shelf life there is no need to dispose of it. Lid and empty container may be recycled.

### **Section 14: Transport Information**

Non-hazardous. No special requirements.

### **Section 15: Regulatory Information**

Authorized by U.S.D.A. for use in federally inspected meat and poultry processing plants.

Reviewed and authorized by the following states: Florida, Indiana, Massachusetts, Washington, Wisconsin.

### **Section 16: Other Information**



## Safety Data Sheet

Including Wheatland Tube, Atlas Tube, Sharon Tube, Picoma and Western Tube Divisions

### Zekelman Industries Corporate Office

227 West Monroe Street  
26<sup>th</sup> Floor  
Chicago, IL 60606  
Phone: (312) 275-1601

### Zekelman Industries Business Units (include):

1. Pipe & Sprinkler – Wheatland, PA; Warren, OH and Chicago, IL
2. DOM – Farrell, PA and Niles, OH
3. HSS & Piling – Chicago, IL; Birmingham, AL; Blytheville, AR; and Harrow, ONT, and Oak Bluff, MB CANADA;
4. Electrical, Fence & Mechanical – Chicago, IL, Cambridge, OH and Long Beach, CA
5. Energy Tubulars – Wheatland, PA; Warren, OH and Niles, OH

Dear Customer:

Enclosed is a Zekelman Industries Safety Data Sheet for the products that you purchase. It is the continuing policy of Zekelman Industries to provide to our customers, health, safety and environmental protection information that is appropriate for handling and utilizing our products.

These Safety Data Sheets contain information that is valuable to your employee health and safety program and may be required to be in your possession by the Federal Hazard Communication Standard or other right-to-know legislation. It is important that your facility hazard communication coordinator, industrial hygiene or safety personnel receives this information so that it can be communicated to those employees having contact with these products.

SDSs for a specific pipe coating (rust preventatives or protective coatings that are applied to products requiring such treatment) are available upon request.

Hazard Communication Programs are of the utmost importance to Zekelman Industries. We believe this information will be very beneficial to your Hazard Communication Program and we welcome any inquiries regarding additional information that you may require.

Contact and Emergency Telephone #:

Mike Ryan

Manager Technical Services

Email: [mike.ryan@zekelman.com](mailto:mike.ryan@zekelman.com)

Phone: (724) 342-6851 x 1587

Fax: (724) 346-7158



## Safety Data Sheet

### 1. COMPANY IDENTIFICATION

Manufacturer:  
Zekelman Industries  
227 West Monroe Street, 26<sup>th</sup> Floor  
Chicago, IL 60606

**Emergency Contact**  
**Mike Ryan**  
724-342-6851 x 1587  
mike.ryan@zekelman.com

Zekelman Industries includes the Wheatland Tube, Atlas Tube, Sharon Tube, Western Tube and Picoma Divisions.

### PRODUCT IDENTIFICATION

**Product Name(s):** CBW Pipe, ERW Pipe, Carbon Steel pipe, MLT, Mega-Flow, Mega-Thread, Schedule 10, Schedule 40, WLS, WST, GL, WT-40, WT-30, WT-20, Tubing, Casing, Line Pipe, Hollow Structural Sections (HSS), Pipe Piles, Mechanical Tubing, Conduit, Rigid Metal Conduit (RMC), Electrical Metallic Tubing (EMT), Intermediate Metal Conduit (IMC)

ASTM Standard(s): A53, A135, A252, A795, A500, A501, A513, A589, A618, A865, A1085, F1043, F1083,  
API Standard(s) 5L & 5CT;

UL Standard(s): 6, 6A, 797 & 1242; ANSI Standard(s) C80.1, C80.3, C80.5 & C.80.6

**Common Names:** Standard Pipe, Schedule 40, SureThread, Fence Pipe, Mechanical Tubing and Pipe, Schedule 10, Plumbing Pipe, Sprinkler Pipe, Water Pipe, Line Pipe, Gas Pipe, Steam Pipe, Extra Heavy Pipe, Schedule 80, Rigid Conduit, RMC, RGC, EMT, Color EMT, IMC, Aluminum Rigid Conduit, Electrical Fittings, Nipples & Couplings, Coupling Stock, Tubing, Casing, Line Pipe, Hollow Structural Sections (HSS), Pipe Piles, DOM

### 2. HAZARDS IDENTIFICATION

This formed solid metal product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other similar processes, potentially hazardous airborne particulate and fumes may be generated. These operations should be performed in well-ventilated areas. Avoid inhalation of metal dusts and fumes. Iron or steel foreign bodies imbedded in the cornea of the eye will produce rust stains unless removed promptly. If appropriate, respiratory protection and other personal protective equipment should be used.

**Primary Entry Routes:** Semi-finished Alloy steel products in their usual physical form do not present an inhalation, ingestion or contact hazard; however, operations such as burning, welding, sawing, brazing, machining and grinding may result in the following effects if exposures exceed recommended limits as listed in Section 2. Steel surfaces may be treated with small amounts of corrosion resistant paints, epoxies, laminates, etc., generally applied at the customer's request. Refer to the coating manufacturer's MSDS for hazards associated with coatings.

#### Acute Effects:

**Inhalation:** Excessive exposure to high concentrations of dust may cause irritation to the eyes, skin and mucous membranes of the upper respiratory tract. Excessive inhalation of fumes of freshly formed metal oxide particles sized below 1.5 microns and usually between 0.02-0.05 microns from many metals can produce an acute reaction known as "metal fume fever". Symptoms consist of chills and fever (very similar to and easily confused with flu symptoms), metallic taste in the mouth, dryness and irritation of the throat followed by weakness and muscle pain. After excessive exposures, onset of symptoms present after a few hours and usually last from 12 to 48 hours. Long-term effects from metal fume fever have not been noted. Freshly formed oxide fumes of manganese and copper have been associated with causing metal fume fever. Inhalation of chromium compounds may cause upper respiratory tract irritation. Molybdenum, nickel, and vanadium compounds, especially vanadium pentoxide, are respiratory tract irritants.

**Eye:** Particles of iron or iron compounds could become imbedded in the eye.

**Skin:** Skin contact with metallic fumes and dusts may cause physical abrasion. Chromium, molybdenum and vanadium compounds, especially vanadium pentoxide, are skin irritants. Exposure to nickel may cause contact and atopic dermatitis and





## Safety Data Sheet

allergic sensitization. Repeated or prolonged contact with chemical surface treatments or oil residue may cause skin irritation, dermatitis, ulceration or allergic reactions in sensitized individuals

**Ingestion:** Ingestion of harmful amounts of this product as distributed is unlikely due to its solid insoluble form. Ingestion of dust may cause nausea or vomiting.

**Chronic Effects:** Chronic inhalation of metallic fumes and dusts are associated with the following conditions:

**IRON OXIDE:** Chronic inhalation of excessive concentrations of iron oxide fumes or dusts may result in the development of a benign pneumoconiosis, called siderosis, which is observable as an X-ray change. No physical impairment of lung function has been associated with siderosis. Inhalation of excessive concentrations of ferric oxide may enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens. Iron oxide is listed as a Group 3 (not classifiable) carcinogen by IARC (The International Agency for Research on Cancer).

**ALUMINUM:** Aluminum dusts/fines are a low health risk by inhalation and should be treated as a nuisance dust. Aluminum dust is a respiratory and eye irritant.

**CARBON:** Chronic inhalation of high concentrations to carbon may cause pulmonary disorders.

**CHROMIUM:** The health hazards associated with exposure to chromium are dependent upon its oxidation state. The metal form (chromium as it exists in this product) is of very low toxicity. The hexavalent form is very toxic. Repeated or prolonged exposure to hexavalent chromium compounds may cause respiratory irritation, nosebleed, ulceration and perforation of the nasal septum. Industrial exposure to certain forms of hexavalent chromium has been related to an increased incidence of cancer. The National Toxicology Program (NTP) Fourth Annual report on Carcinogens cites "certain Chromium compounds" as human carcinogens. ACGIH has reviewed the toxicity data and concluded that chromium metal is not classifiable as a human carcinogen.

**COPPER:** Inhalation of high concentrations of freshly formed oxide fumes and dusts of copper can cause metal fume fever. Chronic inhalation of copper dust has caused, in animals, hemolysis of the red blood cells, deposition of hemofuscin in the liver and pancreas, injury to lung cells and gastrointestinal symptoms.

**MANGANESE:** Chronic exposure to high concentrations of manganese fumes and dusts may adversely affect the central nervous system with symptoms including languor, sleepiness, weakness, emotional disturbances, spastic gait, mask-like facial expression and paralysis. Animal studies indicate that manganese exposure may increase susceptibility to bacterial and viral infections.

**MOLYBDENUM:** Certain handling operations, such as burning and welding, may generate both insoluble molybdenum compounds (metal and molybdenum dioxide) and soluble molybdenum compounds (molybdenum trioxide). Molybdenum compounds generally exhibit a low order of toxicity with the trioxide the more toxic. However, some reports indicate that the dust of the molybdenum metal, molybdenum dioxide and molybdenum trioxide may cause eye, skin, nose and throat irritation in animals.

**NICKEL:** Exposure to nickel dusts and fumes can cause sensitization dermatitis, respiratory irritation, asthma, pulmonary fibrosis, edema and may cause nasal or lung cancer in humans. IARC lists nickel and certain nickel compounds as Group 2B carcinogens (sufficient animal data). ACGIH 2009 TLVs® and BEIs® lists insoluble nickel compounds as confirmed human carcinogens.

**SILICON:** Silicon dusts are a low health risk by inhalation and should be treated as a nuisance dust. Eye contact with pure material can cause particulate irritation. Skin contact with silicon dusts may cause physical abrasion.

**VANADIUM:** Excessive long term or repeated exposures to vanadium compounds, especially the pentoxide, may result in chronic pulmonary changes such as emphysema or bronchitis.

Long-term inhalation exposure to high concentrations (over-exposure) to pneumoconiotic agents may act synergistically with inhalation of oxides, fumes or dusts of this product to cause toxic effects.

**Carcinogenicity:** IARC, NTP, and OSHA do not list steel products as carcinogens. IARC identifies nickel and certain nickel compounds and welding fumes as Group 2B carcinogens that are possibly carcinogenic to humans. ACGIH lists insoluble nickel compounds as confirmed human carcinogens. IARC lists chromium metal and trivalent chromium compounds as Group 3 carcinogens, not classifiable as to their human carcinogenicity. Hexavalent chromium compounds are listed by IARC as Group 1 carcinogens that are carcinogenic to humans. NTP Fourth Annual report on Carcinogens cites "certain Chromium compounds" as human carcinogens. ACGIH has reviewed the toxicity data and concluded that chromium metal is not classifiable as a human carcinogen.



## Safety Data Sheet

**Medical Conditions Aggravated by Long-Term Exposure:** Individuals with chronic respiratory disorders (i.e., asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any fume or airborne particulate matter exposure.

**SARA Potential Hazard Categories:** Delayed Chronic Health Hazard

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Base Metal, Alloying Elements & Metal Coatings

<b>Ingredient Name</b>	<b>CAS Number</b>	<b>Percentage by wt.</b>	<b>OSHA PEL 1</b>	<b>ACGIH TLV 2</b>
<b>Base Metal (Steel):</b>				
Iron	7439-89-6	>95	10 mg/m <sup>3</sup> - Iron oxide fume	5 mg/m <sup>3</sup> - Iron oxide dust and fume
<b>Steel Alloying Elements:</b>				
Aluminum	7429-90-5	< 0.070	15 mg/m <sup>3</sup> - as total dust 5 mg/m <sup>3</sup> - as respirable fraction	10 mg/m <sup>3</sup> - Metal Dust 5 mg/m <sup>3</sup> - Welding fume
Carbon	7440-44-0	< 0.46	15 mg/m <sup>3</sup> - as total dust (PNOR) 3 5 mg/m <sup>3</sup> - as respirable fraction (PNOR)	10 mg/m <sup>3</sup> - as inhalable fraction <sup>4</sup> (PNOS) 5 3 mg/m <sup>3</sup> - as respirable fraction <sup>6</sup> (PNOS)
Chromium	7440-47-3	< 1.10	1 mg/m <sup>3</sup> - Chromium metal	0.5 mg/m <sup>3</sup> - Chromium metal & Cr III compounds
Copper	7440-50-8	< 0.21	0.1 mg/m <sup>3</sup> - Fume (as Cu) 1 mg/m <sup>3</sup> - Dusts & mists (as Cu)	0.1 mg/m <sup>3</sup> - Fume 1 mg/m <sup>3</sup> - Dusts & mists (as Cu)
Manganese	7439-96-5	< 1.66	5 mg/m <sup>3</sup> (C) - Fume & Mn compounds	0.2 mg/m <sup>3</sup>
Molybdenum	7439-98-7	< 0.25	15 mg/m <sup>3</sup> - as total Dust 5 mg/m <sup>3</sup> - as respirable fraction	10 mg/m <sup>3</sup> - Insoluble Compounds 5 mg/m <sup>3</sup> - Soluble Compounds
Nickel	7440-02-0	< 0.10	1 mg/m <sup>3</sup> - Metal & insoluble compounds (as Ni)	1.5 mg/m <sup>3</sup> - Elemental nickel (as Ni) 0.2 mg/m <sup>3</sup> - Insoluble compounds
Silicon	7440-21-3	< 0.35	15 mg/m <sup>3</sup> - as total dust 5 mg/m <sup>3</sup> - as respirable fraction	10 mg/m <sup>3</sup>
Vanadium	7440-62-2	< .15	0.5 mg.m <sup>3</sup> - as respirable Dust 0.1 mg/m <sup>3</sup> - Fume	0.05 mg/m <sup>3</sup>
<b>Base Metal (Aluminum):</b>				
Aluminum as Metal	7429-90-5	>90	15 mg/m <sup>3</sup> - as total dust 5 mg/m <sup>3</sup> - as respirable fraction	10 mg/m <sup>3</sup> - Metal Dust 5 mg/m <sup>3</sup> - Welding fume
<b>Aluminum Alloying Elements:</b> Zinc, Manganese & Silicon (Limits shown above and below)				
<b>Metallic Coating – (Galvanized Product Only)</b>				
Zinc	1314-13-2	<6.0	5 mg.m <sup>3</sup> - Dust – As Zinc Oxide 15 mg/m <sup>3</sup> - Fume - As Zinc Oxide	5 mg/m <sup>3</sup> 5 mg/m <sup>3</sup>

\* Varnish, Paint or Oil coating may be used: Listing of coatings used is available upon request (Addendum 2).

#### Notes:

- All commercial steel products contain small amounts of various elements in addition to those listed in the attached SDS. These small quantities are frequently referred to as “trace” or “residual” elements that generally originate in the raw materials used. Steel products may contain the following trace or residual elements including typical percentages for the elements identified: boron (≤0.0005 max, typically 0.0001%), calcium (≤ 0.005 max, typically 0.0003%), columbium (≤0.15 max, typically 0.002%), molybdenum (≤0.6 max, typically 0.006%), phosphorous (≤0.1 max, typically 0.01%), sulfur (≤ 0.04 max, typically, 0.007%), tin (≤ .03 max, typically 0.002%), titanium (≤0.15 max,



## Safety Data Sheet

typically 0.002%), and vanadium ( $\leq 0.15$  max, typically 0.001%). Other trace elements not frequently identified, may include antimony, arsenic, cadmium, cobalt, lead, and zirconium.

- Percentages are expressed as typical ranges or maximum concentrations of the ingredients for the purpose of communicating the potential hazards of the product. Consult product specifications for specific composition information.
- OSHA (Occupational Health and Safety Administration) PELs (Permissible Exposure Limits) are 8-hour TWA (Time Weighted Average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted.
- TLV (Threshold Limit Values) established by ACGIH (the American Conference of Governmental Industrial Hygienists) are 8-hour TWA concentrations unless otherwise noted.
- PNOR (Particulates Not Otherwise Regulated) - All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by a limit which is the same as the inert or nuisance dust limit of 15 mg/m<sup>3</sup> for total dust and 5 mg/m<sup>3</sup> for the respirable fraction.
- Inhalable fraction - The concentration of inhalable particulate for the application of this TLV is to be determined from the fraction passing a size-selector with the characteristics defined in the ACGIH 2009 TLVs® and BEIs® (Biological Exposure Indices).
- PNOS (Particulates Not Otherwise Specified) - Particulates identified under the PNOS heading are "nuisance dusts" containing no asbestos and <1% crystalline silica. A TWA-TLV of 10 mg/m<sup>3</sup> for inhalable particulate and 3 mg/m<sup>3</sup> for respirable particulate has been recommended.
- Respirable fraction - The concentration of respirable dust for the application of this limit is to be determined from the fraction passing a size-selector with the characteristics defined in the ACGIH 2009 TLVs® and BEIs®.

### 4. FIRST AID MEASURES

Emergency First Aid Procedures:

**Inhalation:** For over-exposure to airborne fumes and particulate, remove exposed person to fresh air. If breathing is difficult or has stopped, administer artificial respiration or oxygen as indicated. Seek medical attention promptly.

**Eye Contact:** Flush with large amounts of clean water to remove particles. Seek medical attention if irritation persists.

**Skin Contact:** Not anticipated to pose a significant skin hazard. However, should dermatitis develop, wash affected area thoroughly with mild soap and water. If irritation or other symptoms develop, seek medical attention. If thermal burn has occurred, flush area with cold water and seek medical attention. If mechanical abrasion has occurred, seek medical attention.

**Ingestion:** Not a probable route of industrial exposure; however, if ingested, seek medical attention immediately.

### 5. FIRE AND EXPLOSION HAZARD DATA

Steel products in the solid state present no fire or explosion hazard and do not contribute to the combustion of other products.

### 6. ACCIDENTAL RELEASE MEASURES

**Spill/Leak Procedures:** Steel products in the solid state present no release hazard. No special [reactions are required for spills of bulk material. If large quantities of dust are spilled, remove by vacuuming or wet sweeping to prevent heavy concentrations of airborne dust.

**Hazardous Materials Released:** N/A

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120) and all other pertinent state and Federal requirements.

**Disposal:** Follow applicable Federal, state, and local regulations.

### 7. HANDLING AND STORAGE



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**Handling Precautions:** Operations with the potential for generating high concentrations of airborne particles should be evaluated and controlled as needed. Minimize generation of airborne dust and fume. Avoid breathing metal dust or fumes. Practice good housekeeping. Non-metallic coatings, i.e. oils, paints, epoxies, laminates, etc. may be applied (generally at the customer's request) to the surface of these products. Burning or welding on steel products with non-metallic coatings may produce emissions which may cause eye and respiratory tract irritation or other respiratory system effects. The possible presence of these coatings should be recognized and considered when evaluating potential employee health hazards and exposures during handling and welding or other dust/fume generating activities. Prolonged contact with non-metallic coating oils may cause skin irritation and should be avoided.

**Storage Requirements:** Store away from acids and incompatible materials.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use controls as appropriate to minimize exposure to metal fumes and dusts during handling operations. When airborne emissions may occur due to further processing: (1) avoid breathing dust and fume, (2) evaluate potential employee exposure, (3) minimize generation of airborne emissions, (4) maintain surfaces free as practical of accumulated material, (5) use protective clothing as specified by an industrial hygienist or safety professional where exposure levels may be excessive, (6) do not smoke in work area, (7) wash hands before eating, drinking or smoking and after handling, (8) change contaminated clothing before leaving work premises. Removal of surface coatings should be considered prior to welding or other fume generating activities.

**Ventilation:** Provide general or local exhaust ventilation systems to minimize airborne concentrations. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Administrative Controls:** Do not use compressed air to clean-up accumulated material or dust. Minimize generation of airborne emissions.

**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen.

**Protective Clothing/Equipment:** For operations, which result in elevating the temperature of the product to or above its melting point or result in the generation of airborne particulates, use protective clothing, gloves and safety glasses to prevent skin and eye contact. Contact lenses should not be worn where industrial exposures to this material are likely. Use safety glasses or goggles as required for welding, burning, sawing, brazing, grinding or machining operations. Protective gloves should be worn as required for welding, burning or handling operations.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Solid

**Appearance and Odor:** Metallic Gray, Odorless

**Odor Threshold:** Not Applicable

**Vapor Pressure:** Not Applicable

**Vapor Density (Air = 1):** Not Applicable

**Formula Weight:** Not Applicable

**Density:** 7.85

**Specific Gravity (H<sub>2</sub>O = 1, at 4 °C):** 7.6-7.8

**pH:** Not Applicable

**Water Solubility:** Insoluble

**Other Solubilities:** Not Applicable

**Boiling Point:** Not Applicable

**Viscosity:** Not Applicable

**Refractive Index:** Not Applicable

**Surface Tension:** Not Applicable

**% Volatile:** Not Applicable

**Evaporation Rate:** Not Applicable

**Melting Point:** Base Metal 1537.8°C, (2800 °F)

### 10. STABILITY AND REACTIVITY

**Stability:** Steel products are stable under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization will not occur.



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**Chemical Incompatibilities:** Will react with strong acids to form hydrogen. Iron oxide dusts in contact with calcium hypochlorite evolve oxygen and may cause an explosion.

**Conditions to Avoid:** Avoid storage with strong acids or calcium hypochlorite. Molten metal may react violently with water.

**Hazardous Decomposition Products:** Thermal oxidative decomposition of steel products can produce fumes containing oxides of iron and manganese as well as other elements. If present, surface treatments such as corrosion-inhibiting oils, resin, or coatings on the product may yield noxious gases such as the oxides of carbon upon thermal oxidative decomposition.

### 11. TOXICOLOGICAL INFORMATION

**Toxicity Data:**\* No information is available for the product as a mixture. The possible presence of chemical surface treatments and oil coatings should be considered when evaluating potential employee health hazards and exposures during handling and welding or other fume generating activities.

**Eye Effects:** Eye contact with the individual components may cause particulate irritation. Implantation of iron particles in guinea pig corneas have resulted in rust rings with corneal softening about rust ring.

**Skin Effects:** Not anticipated to pose significant skin hazards. Skin contact with the individual components may cause physical abrasion, irritation, dermatitis, ulcerations and sensitizations.

**Chronic Effects:** Refer to Section 3

**Acute Inhalation Effects:** Inhalation of the individual alloy components has been shown to cause various respiratory effects.

**Acute Oral Effects:** No Information Found (NIF)

**Other:** No LC50 or LD50 has been established for the mixture as a whole. Iron LD50: 30 g/kg oral (rat), Aluminum LD50: NIF, Carbon LD50: NIF, Chromium LDLo: 71 mg/kg GIT orl (human), Copper LDLo: 120 µg/kg GIT ipl (rat), Manganese LD50: 9 g/kg oral (rat), Molybdenum LDLo: 114 mg/kg ipr (rat), Nickel LDLo: 5 mg/kg orl (guinea pig), Silicon LD50: NIF, Vanadium LD50: 59 mg/kg scu (rabbit)

**Carcinogenicity:** Chromium and Nickel, Refer to Section 3

**Mutagenicity:** NIF

**Teratogenicity:** NIF

- See NIOSH, RTECS (NO7400000), for additional toxicity data on iron oxide, (BD1200000) for aluminum oxide, (FF5250000) for carbon, GB5425000) for chromium, (GL5325000) for copper, (OO9275000) for manganese, (QA4680000) for molybdenum, (QR5950000) for nickel, (WM0400000) for silicon, (YW2460000) for vanadium pentoxide

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** No information found for the product as a whole. However, individual components of the product have been found to be toxic to the environment. Metal dusts may migrate into soil and groundwater and be ingested by wildlife.

**Environmental Fate:** No Information Found (NIF)

**Environmental Degradation:** NIF

**Soil Absorption/Mobility:** No information found for the product as a whole. However, individual components of the product have been found to be absorbed by plants from soil.

### 13. DISPOSAL CONSIDERATION

**Disposal:** This material is considered to be a solid waste, not a hazardous waste. Follow applicable Federal, state, and local regulations for disposal of solid waste and airborne particulates accumulated during handling operations of the product. Waste steel products can be recycled for further use.

**Disposal Regulatory Requirements:** No Information Found (NIF)

**Container Cleaning and Disposal:** Follow applicable Federal, state and local regulations. Observe safe handling precautions.



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### 14. TRANSPORT INFORMATION

#### DOT Transportation Data (49 CFR 172.101):

Carbon and Alloy Steels are not listed as hazardous substances under 49 CFR 172.101.

<b>Shipping Name:</b> Not Applicable	<b>Packaging Authorizations</b>	<b>Quantity Limitations</b>
<b>Shipping Symbols:</b> Not Applicable	a) <b>Exceptions:</b> None	a) <b>Passenger, Aircraft, or Railcar:</b> Not Applicable
<b>Hazard Class:</b> Not Applicable	b) <b>Non-bulk Packaging:</b> Not Applicable	b) <b>Cargo Aircraft Only:</b> Not Applicable
<b>ID No.:</b> Not Applicable	c) <b>Bulk Packaging:</b> Not Applicable	
<b>Packing Group:</b> Not Applicable		<b>Vessel Stowage Requirements</b>
<b>Label:</b> Not Applicable		a) <b>Vessel Stowage:</b> Not Applicable
<b>Special Provisions (172.102):</b> None		b) <b>Other:</b> Not Applicable

### 15. REGULATORY INFORMATION

**Regulatory Information:** *The following listing of regulations relating to an ArcelorMittal USA Inc. product may not be complete and should not be solely relied upon for all regulatory compliance responsibilities.*

This product and/or its constituents are subject to the following regulations:

#### OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Tables Z-1, Z-2 & Z-3): Steel products as a whole are not listed; however, individual components of the product are listed.

#### EPA Regulations:

RCRA: Chromium and Nickel are regulated under this act.

CERCLA Hazardous Substance (40 CFR 302.4): The product as a whole is not listed; however, individual components of the product are listed: Chromium, Copper, Manganese compounds, and Nickel are listed under SARA 302.

SARA 311/312 Codes: Delayed (chronic) health hazard.

SARA 313: Aluminum (fume or dust), Chromium, Copper, Manganese, and Nickel are subject to SARA 313 reporting requirements. Please also note that if you prepackage or otherwise redistribute this product to industrial customers, SARA 313 requires that a notice be sent to those customers.

Clean Water Act: Chromium, Copper and Nickel are Section 307 Priority Pollutants.

Safe Drinking Water Act: Aluminum, Chromium, Copper, Molybdenum, Nickel and Vanadium are regulated under this act.

**State Regulations:** The product as a whole is not listed in any state regulations. However, individual components of the product are listed in various state regulations.

Pennsylvania Right to Know: Contains regulated material in the following categories:

- Hazardous Substances: Calcium, Molybdenum, and Silicon.
- Environmental Hazards: Aluminum, Chromium, Copper, Manganese, Nickel, and Vanadium.
- Special Hazard Substances: Chromium and Nickel

New Jersey Right to Know: Contains regulated material in the following categories:

- Environmental Hazardous Substance: Aluminum (fume or dust), Chromium, Copper, Manganese, Nickel, and Vanadium (fume or dust)
- Special Health Hazard Substances: Not regulated.

California Prop. 65: Nickel is a material known to cause cancer or reproductive toxicity.

**Other Regulations:** The product as a whole is not listed in any state regulations. However, individual components of the product are listed in various state regulations.

WHMIS (Canadian): D2B Product Classification

### 16. OTHER INFORMATION

**Prepared By:** Zekelman Industries.

#### Hazard Rating Systems:

NFPA Code: 0-0-0 HMIS Code: 0-0-0 PPE: See Section 8



## Safety Data Sheet

### ABBREVIATIONS/ACRONYMS:

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists	<b>NIF</b>	No Information Found
<b>BEIs</b>	Biological Exposure Indices	<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>CAS</b>	Chemical Abstracts Service	<b>NTP</b>	National Toxicology Program
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act	<b>ORC</b>	Organization Resources Counselors
<b>CFR</b>	Code of Federal Regulations	<b>OSHA</b>	Occupational Safety and Health Administration
<b>CNS</b>	Central Nervous System	<b>PEL</b>	Permissible Exposure Limit
<b>GI, GIT</b>	Gastro-Intestinal, Gastro-Intestinal Tract	<b>PNOR</b>	Particulate Not Otherwise Regulated
<b>HMS</b>	Hazardous Materials Identification System	<b>PNOC</b>	Particulate Not Otherwise Classified
<b>IARC</b>	International Agency for Research on Cancer	<b>PPE</b>	Personal Protective Equipment
<b>LC50</b>	Median Lethal Concentration	<b>ppm</b>	parts per million
<b>LD50</b>	Median Lethal Dose	<b>RCRA</b>	Resource Conservation and Recovery Act
<b>LD Lo</b>	Lowest Dose to have killed animals or humans	<b>RTECS</b>	Registry of Toxic Effects of Chemical Substances
<b>LEL</b>	Lower Explosive Limit	<b>SARA</b>	Superfund Amendment and Reauthorization Act
<b>µg/m<sup>3</sup></b>	microgram per cubic meter of air	<b>SCBA</b>	Self-contained Breathing Apparatus
<b>mg/m<sup>3</sup></b>	milligram per cubic meter of air	<b>STEL</b>	Short-term Exposure Limit
<b>mppcf</b>	million particles per cubic foot	<b>TLV</b>	Threshold Limit Value
<b>MSDS</b>	Material Safety Data Sheet	<b>TWA</b>	Time-weighted Average
<b>MSHA</b>	Mine Safety and Health Administration	<b>UEL</b>	Upper Explosive Limit
<b>NFPA</b>	National Fire Protection Association		

**Disclaimer:** This information is taken from sources or based upon data believed to be reliable. Our objective in sending this information is to help you protect the health and safety of your personnel and to comply with the OSHA Hazard Communication Standard and Title III of the Superfund Amendment and Reauthorization Act of 1986. Zekelman Industries makes no warranty as to the absolute correctness, completeness, or sufficiency of any of the foregoing, or any additional, or other measures that may not be required under particular conditions. Zekelman Industries MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR TRADE.

### Carbon and Alloy

**GENERAL HAZARD STATEMENT:** This formed solid product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other similar processes, potentially hazardous airborne particulate and fumes may be generated; these operations should be performed in well-ventilated areas. Avoid inhalation of metal dusts and fumes. Iron or steel foreign bodies imbedded in the cornea of the eye will produce rust stains unless removed promptly.

If appropriate, respiratory protection and other personal protective equipment should be used.

### CAUTION

**DUST OR FUME GENERATED DURING WELDING OR OTHER PROCESSING MAY CAUSE:**

**RESPIRATORY TRACT, SKIN, AND EYE IRRITATION AND/OR SENSITIZATION, AND MAY CAUSE METAL FUME FEVER.**

**CANCER HAZARD (CONTAINS NICKEL AND CHROMIUM\*). RISKS WILL DEPEND UPON TYPE OF PROCESSING. EFFECTS WILL DEPEND ON DURATION AND LEVEL OF EXPOSURE.**

Consult SDS for more information



## Safety Data Sheet

*\* The chromium metal in these alloys is in the zero valence state. As such, chromium metal does not present any unusual health hazard. However, welding, torch cutting, brazing or perhaps grinding on this product may generate airborne concentrations of hexavalent chromium (Cr+6), metallic nickel and nickel alloys. The International Agency for Research on Cancer classified hexavalent chromium as a category 1 confirmed human carcinogen and metallic nickel and alloys as a category 2B possibly carcinogenic to humans.*

**PRECAUTIONS:** Avoid breathing or contact with dust or fume. Adequate ventilation is required while welding burning, melting, cutting, brazing, grinding, and machining. Wear appropriate personal protective equipment.

### **FIRST AID:**

**INHALATION** - For over-exposure to airborne fumes and particulate, remove exposed person to fresh air. If breathing is difficult or has stopped, administer artificial respiration or oxygen as indicated. Seek medical attention promptly.

**EYE CONTACT** - Flush with large amounts of clean water to remove particles. Seek medical attention if irritation persists.

**SKIN CONTACT** - Not anticipated to pose a significant skin hazard. If irritation or other symptoms develop, seek medical attention. Wash affected areas with soap or mild detergent and water. If thermal burn has occurred, flush area with cold water and seek medical attention.

**INGESTION** - Not a probable route of industrial exposure; however, if ingested, obtain medical advice.

Zekelman Industries  
227 West Monroe Street, 26<sup>th</sup> Floor, Chicago, IL 60606

**General Information: 724-342-6851**

**Original Issue Date: 11/01/1985**

**Revised: 1/03/2018**





# SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Clorox Commercial Solutions® Clorox® Clean-Up® Disinfectant Bleach Cleaner

### Other means of identification

**Drug Identification Number** 02319489

### Recommended use of the chemical and restrictions on use

**Recommended use** Disinfecting bleach spray cleaner

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Supplier Address**

The Clorox Company of Canada Ltd.  
150 Biscayne Crescent  
Brampton, Ontario L6W 4V3

Phone: 1-905-595-8200

### Emergency telephone number

**Emergency Phone Numbers** For Medical Emergencies, call: 1-800-446-1014  
For Transportation Emergencies, call Chemtrec: 1-800-424-9300


## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous under GHS.

Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2A

**GHS Label elements, including precautionary statements****Emergency Overview**

<b>Signal word</b>	<b>Warning</b>		
<b>Hazard Statements</b>			
Causes mild skin irritation			
Causes serious eye irritation			
			
<b>Appearance</b>	Clear, pale yellow	<b>Physical State</b>	Liquid
		<b>Odour</b>	Citrus, herbaceous, bleach

**Precautionary Statements - Prevention**

Wash hands and any exposed skin thoroughly after handling.  
Wear eye protection/face protection such as safety glasses.

**Precautionary Statements - Response****Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin**

If skin irritation occurs: Get medical advice/attention.

**Precautionary Statements - Storage**

None

**Precautionary Statements - Disposal**

None

**Hazards not otherwise classified (HNOC)**

The following medical conditions may be aggravated by exposure to high concentrations of vapour or mist: heart conditions or chronic respiratory problems such as asthma, emphysema, or obstructive lung disease.

**Unknown Toxicity**

0.08% of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

Toxic to aquatic life with long lasting effects

**Interactions with Other Chemicals**

Reacts with other household chemicals such as products containing ammonia, toilet bowl cleaners, rust removers, or acids to produce hazardous gases, such as chlorine and other chlorinated compounds.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %	Trade Secret
Sodium hypochlorite	7681-52-9	1 - 5	
Sodium hydroxide	1310-73-2	0.1 - 1	

The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

### First aid measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
<b>Skin Contact</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. If irritation develops, call a doctor.
<b>Inhalation</b>	Move to fresh air. If breathing is affected, call a doctor.
<b>Ingestion</b>	Call a poison control center or doctor immediately. Have person sip a glassful of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor.
<b>Protection of First-aiders</b>	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

### Most important symptoms and effects, both acute and delayed

<b>Most Important Symptoms and Effects</b>	Stinging and irritation of eyes.
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### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

### Specific Hazards Arising from the Chemical

No information available.

### Explosion Data

<b>Sensitivity to Mechanical Impact</b>	None.
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<b>Sensitivity to Static Discharge</b>	None.
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### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Avoid contact with eyes, skin, and clothing. Use personal protective equipment as required.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental Precautions** See Section 12 for ecological Information.

### Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Products** Products containing ammonia, toilet bowl cleaners, rust removers, or acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>
Sodium hypochlorite 7681-52-9	None	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

### Appropriate engineering controls

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	If splashes are likely to occur: Wear safety glasses with side shields (or goggles). None required for consumer use.
<b>Skin and Body Protection</b>	Wear protective gloves and protective clothing.
<b>Respiratory Protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene Measures</b>	Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical and Chemical Properties**

<b>Physical State</b>	Liquid	<b>Odour</b>	Citrus, herbaceous, bleach
<b>Appearance</b>	Clear	<b>Odour Threshold</b>	No information available
<b>Colour</b>	Pale yellow		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks/ Method</u></b>	
<b>pH</b>	12.4 - 12.8	None known	
<b>Melting/freezing point</b>	No data available	None known	
<b>Boiling point / boiling range</b>	No data available	None known	
<b>Flash Point</b>	Not flammable	None known	
<b>Evaporation rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability Limits in Air</b>			
<b>Upper flammability limit</b>	No data available	None known	
<b>Lower flammability limit</b>	No data available	None known	
<b>Vapour pressure</b>	No data available	None known	
<b>Vapour density</b>	No data available	None known	
<b>Specific Gravity</b>	1.03	None known	
<b>Water Solubility</b>	Soluble in water	None known	
<b>Solubility in other solvents</b>	No data available	None known	
<b>Partition coefficient: n-octanol/water</b>	No data available	None known	
<b>Autoignition temperature</b>	No data available	None known	
<b>Decomposition temperature</b>	No data available	None known	
<b>Kinematic viscosity</b>	No data available	None known	
<b>Dynamic viscosity</b>	No data available	None known	
<b>Explosive Properties</b>	Not explosive		
<b>Oxidizing Properties</b>	No data available		
<b><u>Other Information</u></b>			
<b>Softening Point</b>	No data available		
<b>VOC Content (%)</b>	No data available		
<b>Particle Size</b>	No data available		
<b>Particle Size Distribution</b>	No data available		

## 10. STABILITY AND REACTIVITY

### Reactivity

Reacts with other household chemicals such as products containing ammonia, toilet bowl cleaners, rust removers, or acids to produce hazardous gases, such as chlorine and other chlorinated compounds.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

None known based on information supplied.

### Incompatible materials

Products containing ammonia, toilet bowl cleaners, rust removers, vinegar, or acids.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Exposure to vapour or mist may irritate respiratory tract.
<b>Eye Contact</b>	May cause eye irritation.
<b>Skin Contact</b>	Prolonged contact may cause irritation.
<b>Ingestion</b>	Ingestion may cause irritation to mucous membranes and gastrointestinal tract, nausea, vomiting, and diarrhea.

#### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	10000 mg/kg (Rabbit)	-
Sodium hydroxide 1310-73-2	-	1350 mg/kg (Rabbit)	-

### Information on toxicological effects

**Symptoms** May cause redness and tearing of the eyes.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

**IARC (International Agency for Research on Cancer)**  
Group 3 - Not Classifiable as to Carcinogenicity in Humans

**Reproductive Toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Chronic Toxicity** Carcinogenic potential is unknown.

**Target Organ Effects** Respiratory system, eyes, skin, gastrointestinal tract (GI).

**Aspiration Hazard** No information available.

#### Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document  
Not applicable

## 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Toxic to aquatic life with long lasting effects.

#### Persistence and Degradability

No information available.

#### Bioaccumulation

No information available.

#### Other adverse effects

No information available.

## 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Dispose of in accordance with all applicable federal, provincial, and local regulations.

#### Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, provincial, and local regulations.

## 14. TRANSPORT INFORMATION

**DOT** NOT REGULATED

#### TDG

<b>UN-No</b>	UN3082
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT

**ICAO**

**UN-No** UN3082  
**Proper Shipping Name** ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard Class** 9  
**Packing Group** III  
**Description** UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

**IATA**

**UN-No** UN3082  
**Proper Shipping Name** ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard Class** 9  
**Packing Group** III  
**Description** UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

**IMDG/IMO**

**UN-No** UN3082  
**Proper Shipping Name** ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard Class** 9  
**Packing Group** III  
**EmS No.** F-A, S-F  
**Marine Pollutant** Product is a marine pollutant according to the criteria set by IMDG/IMO  
**Description** UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT

**15. REGULATORY INFORMATION**

**Chemical Inventories**

**TSCA** All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.  
**DSL/NDSL** All components are on the DSL or NDSL.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**International Regulations**

**Canada**  
**WHMIS Hazard Class**  
 D2B - Toxic materials





**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	Health Hazard 2	Flammability 0	Instability 0	Physical and Chemical Hazards -
<b><u>HMIS</u></b>	Health Hazard 2	Flammability 0	Physical Hazard 0	Personal Protection B

Prepared By Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

Preparation/Revision Date New

Revision Note New

Reference 1076552-A/50546003.004

**General Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# Safety Data Sheet

Issue Date: 23-Jan-2012

Revision Date: 10-Feb-2014

Version 1

## 1. IDENTIFICATION

### Product Identifier

**Product Name** BLUE MONSTER – Citrus Scrubbing Towels

### Other means of identification

**SDS #** CAR-002

**Product Code** 77095

### Recommended use of the chemical and restrictions on use

**Recommended Use** Hand cleanser.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

The Mil-Rose Company  
7310 Corporate Blvd.  
Mentor, OH 44060

### Emergency Telephone Number

**Company Phone Number** 800-321-3598  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Clear viscous liquid

**Physical State** Liquid

**Odor** Citrus

### Classification

Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1

### Signal Word

**Warning**

### Hazard Statements

Causes serious eye irritation  
May cause an allergic skin reaction



### Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing should not be allowed out of the workplace

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 If skin irritation or rash occurs: Get medical advice/attention

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Harmful to aquatic life with long lasting effects

**Unknown Acute Toxicity**

3.28% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Proprietary fragrance	Proprietary	<2
Proprietary emulsifying agent	Proprietary	<2

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### 4. FIRST-AID MEASURES

**First Aid Measures**

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
<b>Skin Contact</b>	If skin irritation occurs, rinse affected area with water. If skin irritation or rash occurs: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air.
<b>Ingestion</b>	Drink plenty of water. Do not induce vomiting. Seek medical attention.

**Most important symptoms and effects**

<b>Symptoms</b>	Exposed individuals may experience eye tearing, redness and discomfort. The product contains a small amount of sensitizing substance which may provoke an allergic reaction among sensitive individuals in contact with skin.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
---------------------------	------------------------

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Product will not burn.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

- Personal Precautions** Use personal protective equipment as required.
- Environmental Precautions** See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

- Methods for Containment** Prevent further leakage or spillage if safe to do so.
- Methods for Clean-Up** Wash spill area with plenty of water. Clean up in accordance with all applicable regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

- Advice on Safe Handling** Avoid breathing vapors or mists. Contaminated work clothing should not be allowed out of the workplace.

### Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Do not remove or deface label. Store containers upright.
- Incompatible Materials** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Citric Acid 77-92-9	-	15 mg / m3 (Total)	-

### Appropriate engineering controls

- Engineering Controls** None under normal use conditions.

### Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Avoid contact with eyes.
- Skin and Body Protection** No protective equipment is needed under normal use conditions.
- Respiratory Protection** Ensure adequate ventilation, especially in confined areas.
- General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Odor</b>	Citrus
<b>Appearance</b>	Clear viscous liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Not determined		

Property	Values	Remarks • Method
pH	6.4	
Melting Point/Freezing Point	Not available	
Boiling Point/Boiling Range	Not determined	
Flash Point	None (will not burn)	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not available	
Vapor Density	Not determined	
Specific Gravity	1.003	(1=Water)
Water Solubility	Dispersible	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to Avoid

None known.

### Incompatible Materials

None known based on information supplied.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Eye Contact</b>	Causes serious eye irritation.
<b>Skin Contact</b>	May cause an allergic skin reaction.
<b>Inhalation</b>	Avoid breathing vapors or mists.
<b>Ingestion</b>	Do not taste or swallow.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethyl Adipate 627-93-0	= 1920 mg/kg ( Rat )	-	-
Proprietary fragrance	-	> 5 g/kg ( Rabbit )	-
Proprietary emulsifying agent	= 1900 mg/kg ( Rat )	= 10000 mg/kg ( Rabbit )	-
Alcohol Ethoxylate 68439-46-3	= 1378 mg/kg ( Rat )	> 2 g/kg ( Rabbit )	-
Citric Acid 77-92-9	= 3000 mg/kg ( Rat )	-	-

### Information on physical, chemical and toxicological effects

**Symptoms** Please see section 4 of this SDS for symptoms.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Sensitization** May cause an allergic skin reaction.

**Carcinogenicity** Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Proprietary fragrance		Group 3		X

#### Legend

*IARC (International Agency for Research on Cancer)*  
*Group 3 IARC components are "not classifiable as human carcinogens"*

### Numerical measures of toxicity

Not determined

**Unknown Acute Toxicity** 3.28% of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Proprietary fragrance		0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50		
Proprietary emulsifying agent		20 - 40: 96 h Oncorhynchus mykiss mg/L LC50 semi- static 24: 96 h Oncorhynchus mykiss mg/L LC50 static 37: 96 h Lepomis macrochirus mg/L LC50 static		36: 48 h Daphnia magna mg/L EC50
Citric Acid 77-92-9		1516: 96 h Lepomis macrochirus mg/L LC50 static		120: 72 h Daphnia magna mg/L EC50

### Persistence/Degradability

Not determined.

### Bioaccumulation

Not determined.

### Mobility

Not determined

### Other Adverse Effects

Not determined

## 13. DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

#### **Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### **Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Proprietary fragrance	Toxic

## 14. TRANSPORT INFORMATION

### Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

### DOT

Not regulated

### IATA

Not regulated

### IMDG

#### **Marine Pollutant**

This material may meet the definition of a marine pollutant

## 15. REGULATORY INFORMATION

### International Inventories

**TSCA** Listed

#### **Legend:**

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

*ENCS - Japan Existing and New Chemical Substances*

*IECSC - China Inventory of Existing Chemical Substances*

*KECL - Korean Existing and Evaluated Chemical Substances*

*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

### US State Regulations

#### **U.S. State Right-to-Know Regulations**

Not determined

## 16. OTHER INFORMATION

#### **NFPA**

#### **Health Hazards**

#### **Flammability**

#### **Instability**

#### **Special Hazards**

Not determined

Not determined

Not determined

Not determined

#### **HMIS**

#### **Health Hazards**

#### **Flammability**

#### **Physical Hazards**

#### **Personal Protection**

1

0

0

Not determined

**Issue Date:**

23-Jan-2012

**Revision Date:**

10-Feb-2014

**Revision Note:**

New format

#### **Disclaimer**

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**End of Safety Data Sheet**



3M™ 101+, 200, 201+, 202, 203, 213, 214, 225, 226, 231/231A, 232, 234, 235, 250, 256, 301+, 401+, 501+, 2209, 2214, 2307, 2308, 2364, 2380, 2393, 2450, 2510, 2515, 2517, 2525, 2526, 2693, and 2750 Masking Tapes 07/21/14



## Safety Data Sheet

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<b>Document Group:</b>	26-0759-6	<b>Version Number:</b>	2.00
<b>Issue Date:</b>	07/21/14	<b>Supersedes Date:</b>	05/14/13

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ 101+, 200, 201+, 202, 203, 213, 214, 225, 226, 231/231A, 232, 234, 235, 250, 256, 301+, 401+, 501+, 2209, 2214, 2307, 2308, 2364, 2380, 2393, 2450, 2510, 2515, 2517, 2525, 2526, 2693, and 2750 Masking Tapes

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Masking, Industrial use

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	1-888-3M HELPS (1-888-364-3577)

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

3M™ Value Masking Tape 101+  
 3M™ Paper Tape 200  
 3M™ General Use Masking Tape 201+  
 Scotch® Crepe Masking Tape 202  
 3M™ General Purpose Masking Tape 203  
 Scotch® High Performance Masking Tape 213  
 Scotch® High Performance Masking Tape 214  
 Scotch® Weather Resistant Masking Tape 225  
 Scotch® Solvent Resistant Masking Tape 226  
 Scotch® Paint Masking Tape 231 /231A  
 Scotch® High Performance Masking Tape 232  
 Scotch® General Purpose Masking Tape 234  
 Scotch® Photographic Tape 235  
 Scotch® Flatback Masking Tape 250  
 Scotch® Printable Flatback Paper Tape 256  
 3M™ Performance Yellow Masking Tape 301+  
 3M™ High Performance Green Masking Tape 401+/233+  
 3M™ Specialty High Temperature Masking Tape 501+  
 3M™ Paper Masking Tape 2209  
 3M™ Paper Masking Tape 2214

**3M™ 101+, 200, 201+, 202, 203, 213, 214, 225, 226, 231/231A, 232, 234, 235, 250, 256, 301+, 401+, 501+, 2209, 2214, 2307, 2308, 2364, 2380, 2393, 2450, 2510, 2515, 2517, 2525, 2526, 2693, and 2750 Masking Tapes 07/21/14**

3M™ Masking Tape 2307  
 Scotch® Masking Tape 2308  
 Scotch® Performance Masking Tape 2364  
 Scotch® Performance Masking Tape 2380  
 Scotch® Premium High Temperature Masking Tape 2393  
 3M™ Masking Tape 2450  
 Scotch(R) Sealer Tape 2510  
 Tartan™ Flat Back Paper Masking Tape 2515  
 Scotch® Flatback Tape 2517  
 Scotch® Performance Flatback Tape 2525  
 Scotch® Textile Flatback Tape 2526  
 Scotch® High Performance Masking Tape 2693  
 ScotchBlue™ Industrial Masking Tape 2750

## **SECTION 2: Hazard identification**

### **2.1. Hazard classification**

This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### **2.2. Label elements**

#### **Signal word**

Not applicable.

#### **Symbols**

Not applicable.

#### **Pictograms**

Not applicable.

### **2.3. Hazards not otherwise classified**

None.

148% of the mixture consists of ingredients of unknown acute oral toxicity.

## **SECTION 3: Composition/information on ingredients**

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>
Paper Backing	None	51 - 99
Rubber Adhesive	Trade Secret*	1 - 49

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

#### **Inhalation:**

No need for first aid is anticipated.

#### **Skin Contact:**

Wash with soap and water. If signs/symptoms develop, get medical attention.

3M™ 101+, 200, 201+, 202, 203, 213, 214, 225, 226, 231/231A, 232, 234, 235, 250, 256, 301+, 401+, 501+, 2209, 2214, 2307, 2308, 2364, 2380, 2393, 2450, 2510, 2515, 2517, 2525, 2526, 2693, and 2750 Masking Tapes 07/21/14

**Eye Contact:**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

**If Swallowed:**

No need for first aid is anticipated.

**4.2. Most important symptoms and effects, both acute and delayed**

See Section 11.1. Information on toxicological effects.

**4.3. Indication of any immediate medical attention and special treatment required**

Not applicable

## SECTION 5: Fire-fighting measures

**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

**5.2. Special hazards arising from the substance or mixture**

None inherent in this product.

**5.3. Special protective actions for fire-fighters**

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

Ventilate the area with fresh air.

**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

Not applicable.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

**7.2. Conditions for safe storage including any incompatibilities**

Not applicable.

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters****Occupational exposure limits**

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

**8.2. Exposure controls**

3M™ 101+, 200, 201+, 202, 203, 213, 214, 225, 226, 231/231A, 232, 234, 235, 250, 256, 301+, 401+, 501+, 2209, 2214, 2307, 2308, 2364, 2380, 2393, 2450, 2510, 2515, 2517, 2525, 2526, 2693, and 2750 Masking Tapes 07/21/14

### 8.2.1. Engineering controls

Not applicable.

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

Eye protection not required.

#### Skin/hand protection

No chemical protective gloves are required.

#### Respiratory protection

Respiratory protection is not required.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>General Physical Form:</b>	Solid
<b>Odor, Color, Grade:</b>	various colored paper tape
<b>Odor threshold</b>	<i>Not Applicable</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Boiling Point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	<i>Not Applicable</i>
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Density</b>	<i>Not Applicable</i>
<b>Specific Gravity</b>	<i>Not Applicable</i>
<b>Solubility in Water</b>	Nil
<b>Solubility- non-water</b>	<i>Not Applicable</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>Not Applicable</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>Not Applicable</i>
<b>Viscosity</b>	<i>Not Applicable</i>
<b>Volatile Organic Compounds</b>	<i>Not Applicable</i>
<b>Percent volatile</b>	<i>Not Applicable</i>
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>Not Applicable</i>

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

### 10.2. Chemical stability

Stable.

3M™ 101+, 200, 201+, 202, 203, 213, 214, 225, 226, 231/231A, 232, 234, 235, 250, 256, 301+, 401+, 501+, 2209, 2214, 2307, 2308, 2364, 2380, 2393, 2450, 2510, 2515, 2517, 2525, 2526, 2693, and 2750 Masking Tapes 07/21/14

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

#### Substance

#### Condition

None known.

Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products may occur as a result of oxidation, heating, or reaction with another material.

## SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### **Inhalation:**

No health effects are expected.

#### **Skin Contact:**

Contact with the skin during product use is not expected to result in significant irritation.

#### **Eye Contact:**

Contact with the eyes during product use is not expected to result in significant irritation.

#### **Ingestion:**

No health effects are expected.

#### **Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

#### **Acute Toxicity**

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg

ATE = acute toxicity estimate

#### **Skin Corrosion/Irritation**

3M™ 101+, 200, 201+, 202, 203, 213, 214, 225, 226, 231/231A, 232, 234, 235, 250, 256, 301+, 401+, 501+, 2209, 2214, 2307, 2308, 2364, 2380, 2393, 2450, 2510, 2515, 2517, 2525, 2526, 2693, and 2750 Masking Tapes 07/21/14

Name	Species	Value
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#### Serious Eye Damage/Irritation

Name	Species	Value
------	---------	-------

#### Skin Sensitization

Name	Species	Value
------	---------	-------

#### Respiratory Sensitization

Name	Species	Value
------	---------	-------

#### Germ Cell Mutagenicity

Name	Route	Value
------	-------	-------

#### Carcinogenicity

Name	Route	Species	Value
------	-------	---------	-------

#### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
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#### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
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#### Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
------	-------	-----------------	-------	---------	-------------	-------------------

#### Aspiration Hazard

Name	Value
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Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

## SECTION 12: Ecological information

### Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

### Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in

3M™ 101+, 200, 201+, 202, 203, 213, 214, 225, 226, 231/231A, 232, 234, 235, 250, 256, 301+, 401+, 501+, 2209, 2214, 2307, 2308, 2364, 2380, 2393, 2450, 2510, 2515, 2517, 2525, 2526, 2693, and 2750 Masking Tapes 07/21/14

a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

## SECTION 14: Transport Information

Not regulated per U.S. DOT, IATA or IMO.

*These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M transportation classifications are based on product formulation, packaging, 3M policies and 3M understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original 3M package is certified for U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.*

## SECTION 15: Regulatory information

### 15.1. US Federal Regulations

Contact 3M for more information.

#### 311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - No Delayed Hazard - No

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

**This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

## SECTION 16: Other information

### NFPA Hazard Classification

**Health: 0 Flammability: 1 Instability: 0 Special Hazards: None**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

<b>Document Group:</b>	26-0759-6	<b>Version Number:</b>	2.00
<b>Issue Date:</b>	07/21/14	<b>Supersedes Date:</b>	05/14/13

**3M™ 101+, 200, 201+, 202, 203, 213, 214, 225, 226, 231/231A, 232, 234, 235, 250, 256, 301+, 401+, 501+, 2209, 2214, 2307, 2308, 2364, 2380, 2393, 2450, 2510, 2515, 2517, 2525, 2526, 2693, and 2750 Masking Tapes 07/21/14**

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# **MASTER**® SAFETY DATA SHEET

## 1. Product Identification

Master Products  
4635 Willow Drive  
Medina, MN 55340  
(612) 478-2360

**Product line:** MASTER® DOT 3 Brake Fluid  
**Products:** FH12, FH32, FH128  
**CAS:** Not applicable (Mixture)  
**Synonyms:** Glycol-Based Brake Fluid  
**Recommended use:** Disk and drum hydraulic brake fluid  
**Restrictions:** Do not use where DOT5 is specified  
**Created:** 6 April 2012  
**Revised:** 26 March 2015  
**Emergency phone:** CHEMTREC: (+1) 800-424-9300

## 2. Hazards Identification

**Appearance:** Clear, pale yellow liquid  
**Odor:** Mild, sweet odor  
**Classification(s):** Acute Toxicity, Oral Category 4\*  
Skin Irritation, Category 2  
Eye Irritation, Category 2A  
Target Organ Toxicity, Acute Category 2  
**Target organs:** Kidney, Liver, Central Nervous System  
**Symbol(s):**



**Signal Word:** Warning  
**Hazard Statement(s):** Harmful if swallowed. Causes mild skin irritation. Causes serious eye irritation.

**Other hazard(s):** Combustible liquid. Repeated exposure may cause dryness of the skin. Vapors may cause respiratory irritation.

**Precaution(s):** Wear eye and skin protection before handling. Do not breathe mist/vapors/spray. Use in a well ventilated area. Wear protective gloves/protective clothing. IF IN EYES: Flush with water for 15 minutes and consult a physician. Do no ingest. IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

**Disposal:** Keep out of waterways. Check local, national, and international regulations for proper disposal

**HMIS (estimated):**      **Health – 3**      **Fire – 1**      **Instability – 0**

*\*Classified based on human experience and epistemological data, not based on strict application of the GHS criteria*

### 3. Composition/Information on Ingredients

#### Hazardous Ingredients:

Component	CAS No.	Conc (wt%)
Diethylene Glycol	111-46-6	20 – 40
2-(2-propoxyethoxy)ethanol	6881-94-3	0 – 30
2-(2-butoxyethoxy)ethanol	112-34-5	0 – 20
Ethoxytriglycol	112-50-5	0 – 20
Butoxytriglycol	143-22-6	30 – 70
Additives	Proprietary	< 1

### 4. First Aid Measures

**Eyes** Remove contact lenses, if worn. Rinse with running water for at least 15 minutes, lifting upper and lower eyelids occasionally. Seek medical attention.

**Skin** Remove affected clothing and launder before reuse. Wash affected area for at least 15 minutes with soap and running water. Prolonged or repeated exposure may cause defatting of the skin – symptoms include redness, dryness, cracking

**Inhalation** Remove exposed person to fresh air immediately. Restore or assist breathing, if necessary. Get medical attention immediately if symptoms of CNS depression or intoxication develop

**Ingestion** Do NOT induce vomiting. If conscious, give two full glasses of water. If a significant volume has been swallowed, get medical attention immediately.

Swallowing large amounts of diethylene glycol is potentially lethal. Immediate symptoms may include severe abdominal cramping, diarrhea, vomiting, intoxication, and hypertension. Infrequent urination and other cardiac, neurological, and renal effects of metabolic acidosis, hyponatremia, or hyperkalemia may develop. Diethylene glycol has been known to cause metabolic acidosis leading to kidney and liver failure, neurological complications, and death.

**Additional Info** Note to physician: Treat for diethylene glycol poisoning

**Specific Treatments** Immediately treat with hemodialysis. Diethylene glycol is metabolized by NAD-dependent alcohol dehydrogenase and aldehyde dehydrogenase into 2-hydroxyethoxyacetaldehyde and 2-hydroxyethoxyacetic acid, respectively. Administering NAD-dependent alcohol dehydrogenase inhibitors such as ethanol or fomepizole may slow the production of harmful metabolites.

## 5. Fire Fighting Measures

**NFPA (estimated):** Health – 2 Fire – 1 Instability – 0

**Flash Point** 93°C / 199°F (calculated)

**Extinguishing Media** For small fires use alcohol foam, dry chemical or CO<sub>2</sub>. For large fires apply large (flooding) quantities of water from as far away as possible in a spray or mist.

**Unsuitable Media** Water jet may be ineffective

**Firefighting Procedures:** Wear a self-contained breathing apparatus if necessary based on concentrations of smoke. Material will produce primarily oxides of carbon as combustion products.

**Unusual Hazards** Not Determined

## 6. Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures:** Ventilate if released in a confined area. Avoid breathing mists/vapors/spray. Product may present slipping hazard if left on the floor. Beware of vapors pooling in low areas to explosive concentrations.

**Environmental precautions:** Avoid release to the environment. Prevent from entering into soil, ditches, sewers, waterways or groundwater

**Methods for removal:** Use an explosion-proof pump to remove bulk liquid. Residual liquid can be absorbed on inert material. Dispose of contaminated adsorbent as hazardous waste. Wash the area with water after excess product and adsorbent is removed.

## 7. Handling and Storage

**Max. Handling Temp:** Not determined

**Procedures:** Use in a well ventilated area. Avoid breathing mists/vapors/spray. Avoid handling hot product where possible. Use appropriate personal protective equipment to avoid contact with skin and eyes. Note the location of nearest emergency shower and eye wash station before use. Store with the lid tightly closed in a cool, dry, well-ventilated place. Product is hygroscopic and effectiveness may diminish if opened product is stored for long periods of time. Dispose of spilled or used material in accordance with local, regional, national, and international regulations.

**Max Store Temp:** Do not store or handle at elevated temperatures.

## 8. Exposure Controls/Personal Protection

### Exposure Limits

#### US

#### Guidelines by component

*Diethylene Glycol (CAS# 111-46-6)*

OSHA TWA: 10mg/m<sup>3</sup>

*Ethanolamine (CAS# 141-43-5)*

ACGIH TWA: 3 ppm

ACGIH STEL: 6 ppm

OSHA TWA: 3 ppm

OSHA STEL: 6 ppm

NIOSH TWA: 3 ppm

NIOSH STEL: 6 ppm

**Other Exposure Limits:** Not determined

**Engineering Controls:** Use in a well ventilated area. Local and general ventilation should keep methanol vapor concentration below permissible limits. Where exposure potential exceeds recommended limits, use a NIOSH/OSHA approved supplied air respirator

as recommended. Vapors are heavier than air and will tend to accumulate in low-lying areas.

### Personal Protective Equipment

- Respiratory:** Use a NIOSH or CEN approved full-face respirator with multi-purpose combination or type ABEK respirator cartridges as a backup to engineering controls. If the respiratory is the only means of protection, use a full-face supplied air respirator
- Eye:** Use tightly-fitting chemical splash goggles. Use face shield, especially where splashing is likely to occur
- Gloves:** Use nitrile, butyl, viton, or fluoroelastomer gloves. Even appropriate materials may degrade after prolonged exposure with product.
- Clothing:** Use chemical resistant pants and jackets, preferably of butyl or nitrile rubber
- Other:** Locate the nearest eyewash station and safety shower before handling this product. Limit exposure whenever possible.
- Hygiene:** Wash thoroughly after handling this product.

## 9. Physical and Chemical Properties

<b>Appearance</b>	Clear, pale yellow liquid
<b>Odor</b>	Mild, sweet odor
<b>Odor threshold</b>	Not determined
<b>pH</b>	7 - 11
<b>Melting Point</b>	< -50°C / -58°F
<b>Initial Boiling Pt</b>	> 210°C / 410°F
<b>Flash Point</b>	93°C / 199°F
<b>Evaporation Rate</b>	Not determined
<b>Upper Flammable Lm</b>	Not determined
<b>Lower Flammable Lm</b>	Not determined
<b>Explosive Data</b>	Vapors may form explosive mixtures with air
<b>Vapor Pressure</b>	0.09 hPa (0.07 mmHg) @ 20° (68°F)
<b>Vapor Density</b>	> 5 (Air = 1)
<b>Volatile Organics</b>	Not determined
<b>Density</b>	1.05 mg/cu. cm @15.6°C
<b>Solubility</b>	Miscible in water, alcohol; sparingly soluble in some organic solvents
<b>K<sub>ow</sub></b>	Not determined
<b>Viscosity</b>	1.8 mm/s <sup>2</sup> @ 100°C
<b>Autoignition Point</b>	Not determined
<b>Decomposition Temp</b>	Not determined

## 10. Stability and Reactivity

<b>Stability</b>	Material is normally stable at ambient temperatures and pressures.
<b>Decomposition Temp</b>	Not determined
<b>Incompatibility</b>	Keep away from strong oxidizers and strong acids/bases. Keep away from zinc or other active metals
<b>Polymerization</b>	Will not occur
<b>Thermal Decomposition</b>	Primarily oxidizes to carbon dioxide in normal combustion conditions. In lower oxygen environments carbon monoxide, formaldehyde, or formic acid may be formed.
<b>Conditions to Avoid</b>	Vapors may catch fire – keep away from strong oxidizers, acids, bases as well as heat/sparks/open flames/hot surfaces

## 11. Toxicological Information

### - Acute Exposure -

<b>Eye Irritation</b>	Expected to cause mild to moderate irritation of the eye if exposed to liquid or in high vapor concentrations. May cause irritation, tearing, or burning of the eyes.
<b>Skin Irritation</b>	Expected to be mildly irritating to the skin. Symptoms of irritation may include redness, drying, and cracking of the skin.
<b>Respiratory Irritation</b>	High vapor concentrations may cause transient irritation to the respiratory system.
<b>Dermal Toxicity</b>	This product can be absorbed through the skin, but is of low order of toxicity. Limit exposure to skin where possible.
<b>Inhalation Toxicity</b>	Toxicity is similar to that for oral ingestion, though this exposure mode is far less likely to occur.
<b>Oral Toxicity</b>	Toxic or fatal if ingested. Symptoms of diethylene glycol poisoning include severe abdominal cramping, diarrhea, vomiting, sweating, confusion, cardiac abnormalities, neurological abnormalities, infrequent urination, intoxication or CNS depression. If left untreated, product will metabolize to cause metabolic acidosis, renal failure, hyperkalemia, hyponatremia, parylsis, cardiac failure, or death. Seek medical attention immediately for poisoning. If ingested, DO NOT wait for symptoms to develop before getting treatment.
<b>Aspiration Hazard</b>	This product has a very low viscosity and may be fatal if aspirated into the airways. Do NOT induce vomiting, as this increases risk of aspiration.

### - Chronic Exposure -

<b>Chronic Toxicity</b>	This product may cause dryness or defatting of the skin, dermatitis, or may aggravate existing skin conditions.
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<b>Carcinogenicity</b>	This product and its components are NOT listed by the IARC, NTP, ACGIH, or OSHA as carcinogens
<b>Mutagenicity</b>	Available information does not suggest that this product is a germ cell mutagen
<b>Reproductive Toxicity</b>	Available information does not suggest that this product is a reproductive toxin.
<b>Teratogenicity</b>	Diethylene glycol has produced birth defects in rats at concentrations that are toxic to the mother.
<b>- Additional Information -</b>	
<b>Target organ toxicity</b>	Product is toxic to organs: Kidneys, liver, central nervous system, heart. Metabolic products of diethylene glycol produce acidosis and organ toxicity effects. In some cases, other metabolic abnormalities have been reported such as hyponatremia and hyperkalemia leading to nerve and cardiac damage.
<b>Synergistic effects</b>	Though specific data is not available, ethanol is a competing substrate for NAD-dependent alcohol dehydrogenase and may slow the product of harmful metabolic products of diethylene glycol.
<b>Pharmacokinetics</b>	No data available

## 12. Ecological Information

<b>- Environmental Toxicity -</b>	
<b>Freshwater Fish</b>	Acute LD50 > 75.2 g/L (96h)
<b>Freshwater Invertebrates</b>	Acute LD50 > 10g/l (24h)
<b>Algae</b>	Not determined
<b>Saltwater Fish</b>	Not determined
<b>Saltwater Invertebrates</b>	Not determined
<b>Bacteria</b>	Not determined
<b>Miscellaneous</b>	Not determined

<b>- Environmental Fate -</b>	
<b>Biodegradation</b>	No data available. Expected to biodegrade rapidly and degrade by photo-oxidative reactions with the air
<b>Bioaccumulation</b>	Product is very mobile in soil and water and is somewhat volatile – it is not expected to bioaccumulate.
<b>Soil Mobility</b>	Product has high mobility in soil, slowly evaporates at environmentally relevant temperatures
<b>Other Effects</b>	Not determined

## 13. Disposal Considerations

### Disposal Considerations

All disposal practices must be in accordance with local, regional, national, and international regulations. Store material for disposal as indicated in Section 7.

Disposal by controlled incineration or by secure land fill may be acceptable – review applicable regulations or regulatory bodies before making disposal decisions.

### Contaminated Containers or Packaging

Empty containers are likely to contain flammable vapors or explosive mixtures of vapor and air. Do NOT weld, cut, or grind empty containers. Rinse empty containers with water and dispose of in accordance with local, regional, national, and international regulations

## 14. Transportation Information

Description shown may not apply to all shipping situations. Consult applicable shipping codes to determine any additional shipping requirements

**US DOT** Not dangerous goods

**IMDG** Not dangerous goods

**ICAO/IATA** Not dangerous goods

## 15. Regulatory Information

### - Global Chemical Inventories/Regulations -

<b>USA</b>	All components of this material are on the US TSCA
<b>Other TSCA Reg.</b>	None known
<b>EU</b>	Components of this product and similar mixtures are registered under REACH. Consult the European Chemicals Agency regarding REACH registration, reporting, and other legal requirements for methanol solutions before importing to the EU.
<b>New Zealand</b>	May require notification before sale under New Zealand Regulations
<b>Canada</b>	All components of this product are listed on the Canadian Domestic Substances List (DSL).
<b>Canada WHMIS</b>	B3

### - Other U.S. Federal Regulations -

<b>SARA Ext. Haz. Subst.</b>	No components listed as Extremely Hazardous Substances list. See 40 CFR 355
<b>SARA Sect. 313</b>	2-(2-butoxyethoxy)ethanol (CAS # 112-34-5) and ethoxytriglycol (CAS # 112-50-5) are subject to reporting under SARA Title III, Section 313. See 40 CFR 372

<b>SARA 311/312 Class</b>	<i>Acute Hazard</i>	- YES
	<i>Chronic Hazard</i>	- NO
	<i>Fire Hazard</i>	- NO



**CERCLA Haz. Sub.** *Reactivity Hazard* - NO  
No components listed. See 40 CFR 302

**CA Prop 65** **- State Regulations -**  
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.


<b>Right to Know Component</b>	<b>Right to Know States</b>
2-(2-propoxyethoxy)ethanol (CAS # 6881-94-3)	NJ, PA
Diethylene glycol (CAS # 111-46-6)	NJ, PA
Butoxytriglycol (CAS # 134-22-6)	NJ, PA
Ethoxytriglycol (CAS # 112-50-5)	NJ, PA
Poly(1,2-dihydro-2,2,4-trimethylquinoline) (CAS # 26780-96-1)	NJ, PA
2-(2-butoxyethoxy)ethanol (CAS # 112-34-5)	NJ, PA
Ethanolamine (CAS # 141-43-5)	NJ, PA, MA
Benzotriazole (CAS # 95-14-7)	NJ, PA, MA
Sodium Nitrate (CAS # 7631-99-4)	NJ, PA

**- Other -**

## 16. Other Information

Revision updates may be in many sections and the MSDS should be read in its entirety.  
Prepared according to the UN Globally Harmonized System for the Classification and Labeling of Chemicals (GHS).

**Disclaimer:** The information presented herein has been compiled from sources considered to be dependable and is accurate to the best knowledge. Master, makes no warranty whatsoever expressed or implied of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Master, assumes no legal responsibility for use or reliance upon this data. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

 <p>© 2016 American Foundry Society</p>	<b>SAFETY DATA SHEET (SDS)</b>  <b>GRAY IRON CASTINGS</b>  <b>SDS SC-000-041 Rev. 13</b>
	<b>DATE ISSUED</b>  October 2017

### SECTION 1: PRODUCT IDENTIFICATION

#### PRODUCT IDENTIFIER

Gray Iron Castings

#### COMMON NAME AND OTHER DESIGNATIONS

ASTM (American Society for Testing & Materials) Specification No's./ACI (Alloy Casting Institute) Alloy Designations:  
ASTM: A48, A74, A126, A159, A278, A319, A667, A748, A823, A942

#### Manufacturer

Charlotte Pipe and Foundry Co.

#### Street Address

1335 S. Clarkson St.  
Charlotte, NC 28208 USA

#### Mailing Address

P.O. Box 35430

#### City, State, Zip, Country

Charlotte, NC 28235 USA

#### Contact Person/ Telephone No.

David Waggoner / 704-348-5408

#### e-mail Address / Website

dwaggoner@charlottepipe.com  
www.charlottepipe.com

#### RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Solid casting. No restrictions on use.

### SECTION 2: HAZARD IDENTIFICATION

#### Hazard Classification

This product is an article as sold. Dust or fumes released during machining, grinding, drilling, melting, casting, sawing, blasting, polishing, buffing, brazing, soldering, welding or thermal cutting of the product may produce airborne contaminants that are hazardous. The following classification information is for the hazardous substances that could be released or generated from such processes.

#### Label Elements

##### Signal Word

**DANGER**

##### Classification

**Skin Sensitizer, Category 1** (nickel, hexavalent chromium)

**Carcinogen, Category 1** (Inhalation; target organ-respiratory tract) (hexavalent chromium, nickel oxide, respirable crystalline silica)

**Specific Target Organ Toxicity Repeated Exposure, Category 1** (Inhalation, target organ-respiratory tract) (hexavalent chromium, nickel, respirable crystalline silica)

**Specific Target Organ Toxicity Repeated Exposure, Category 2** (nervous system) (manganese)

## Pictograms



Dust and/or fumes released during processing may contain hexavalent chromium, manganese, nickel and respirable crystalline silica

## Hazard Phrases

- H317 May cause an allergic skin reaction  
 H350 May cause cancer by inhalation  
 H372 Causes damage to respiratory system through prolonged or repeated exposure  
 H373 May cause damage to brain & nervous system through prolonged or repeated exposure

## Precautionary Phrases

- P260 Do not breathe dust & fumes  
 P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P264 Wash hands thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P280 Wear protective gloves, protective clothing, eye protection and face protection.  
 P302 If on skin: Wash with plenty of water  
 P314 Get medical advice/attention if you feel unwell  
 P333 If skin irritation or rash occurs: Get medical advice/attention.  
 P363 Wash contaminated clothing before reuse  
 P501 Dispose of contents in accordance with local and national regulations

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

All values are expressed as weight percent and are approximate. The percent composition reflects the range that is possible in this group of products.

Chemical Name	CAS #	Wt. %
Carbon (C)	7440-44-0	2.5–4.0
Chromium (Cr)	7440-47-3	0.01–1.5
Chromium, hexavalent*	1333-82-0	*
Copper (Cu)	7440-50-8	0.01–1.00
Iron (Fe)	7439-89-6	86.3–96.2
Manganese (Mn)	7439-96-5	0.2–1.1
Nickel (Ni)**	7440-02-0	0.01–1.5
Silicon (Si)	7440-21-3	1.0–3.5
Silica, crystalline (SiO <sub>2</sub> )***	14808-60-7	***
Tin (Sn)	7440-31-5	0.1–0.15

### NOTES

- \* When chromium is heated to high temperatures, which may occur during welding and thermal cutting of this product, it may oxidize to form hexavalent chromium. In the product as sold, chromium is in the elemental form.

\*\* When nickel is heated to high temperatures, which may occur during welding and thermal cutting of this product, it may form nickel oxides. In the product as sold, nickel is in the elemental form.

\*\*\* Castings that have not been cleaned may contain embedded sand which may release respirable crystalline silica dust during processing.

## SECTION 4: FIRST AID MEASURES

No first aid is likely to be needed when castings are handled as sold. The following first aid measures may be needed if dust and/or fumes are released when processes such as machining, grinding, drilling, melting, casting, sawing, blasting, polishing, buffing, brazing, soldering, welding or thermal cutting are performed on the product.

**EYE CONTACT:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

**SKIN CONTACT:** Wash thoroughly after handling. Wash with plenty of water. If irritation or rash occurs, get medical advice/attention. Remove contaminated clothing and wash before reuse.

**INHALATION:** Remove person to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. If exposed, concerned or feeling unwell get medical advice/attention.

**INGESTION:** NEVER give anything by mouth to an unconscious person. DO NOT INDUCE VOMITING. Give large quantities of water. If vomiting occurs keep airways clear and give more water. Seek medical attention immediately.

### Most Important Symptoms & Effects, Both Acute and Delayed

No adverse effects are expected from handling castings as sold. Inhalation of fumes or dust from processes such as machining, grinding, drilling, melting, casting, sawing, blasting, polishing, buffing, brazing, soldering, welding or thermal cutting may cause irritation of the nose, throat or eyes. Nickel, hexavalent chromium compounds and respirable crystalline silica are listed in the National Toxicology Program (NTP) Annual Report on Carcinogens and the International Agency for Research on Cancer (IARC) Monographs as potential carcinogens (see Section 11). Hexavalent chromium and respirable crystalline silica are considered carcinogens by the Occupational Safety & Health Administration (OSHA). Prolonged overexposure to welding or thermal cutting fumes on materials containing iron may cause siderosis (iron deposits in lungs). Nickel and hexavalent chromium may cause skin sensitization. Manganese may cause damage to brain and nervous system through prolonged or repeated exposure. Respirable crystalline silica may cause adverse lung effects (silicosis), immune system effects and kidney effects.

### Indication of Immediate Medical Attention and Special Treatment Needs

None known

## SECTION 5: FIREFIGHTING MEASURES

### Suitable Extinguishing Media

Use suitable extinguishing methods for surrounding fire.

### Special Hazards Arising from the Substance

Not applicable for the casting as sold. Welding arcs and sparks can ignite combustibles and flammables.

### Combustion Products

Welding and thermal cutting may generate oxides of the metals listed in Section 3.

### Special Protective Actions for Firefighters

Not applicable

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

No special precautions necessary for the product as sold.

### Environmental Precautions

Avoid releasing dust generated or collected from processing castings into the environment. Report such spills as required by local and national regulations.

#### Methods and Material for Containment and Clean-up

Not applicable

### SECTION 7: HANDLING & STORAGE

#### Precautions for Safe Handling

No special requirements for the product as sold. The following precautions may be needed if processes such as machining, grinding, drilling, melting, casting, sawing, blasting, polishing, buffing, brazing, soldering, welding or thermal cutting are performed and produce dust and/or fumes: Avoid breathing fumes or dust. Use good housekeeping practices. Use adequate ventilation to control exposure to dusts and fumes below their applicable occupational exposure limits. Employee exposures should be assessed to determine what specific corrective actions may be needed when performing tasks that release dust or fumes. Take appropriate precautions to prevent fires and explosion when hot work is performed. Do not eat, smoke or drink when performing the tasks listed above.

#### Conditions for Safe Storage, Including any Incompatibilities

No special storage requirements.

### SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

#### Occupational Exposure Limits

This product is an article as sold. Dust or fumes generated from machining, grinding, drilling, melting, casting, sawing, blasting, polishing, buffing, brazing, soldering, welding or thermal cutting of the product may produce contaminants with the following Occupational Exposure Limits (OELs):

Ingredient	CAS #	FEDERAL OSHA PEL * (mg/m <sup>3</sup> )	ACGIH TLV® (mg/m <sup>3</sup> )
Carbon	7440-44-0	NE	NE
Chromium Metal Hexavalent, insoluble**	7440-47-3	1 (TWA) 0.005 (TWA)	0.5 (TWA) 0.01 (TWA)
Copper Dust Fume	7440-50-8	1 (TWA) 0.1 (TWA)	1 (TWA) 0.2 (TWA)
Iron	7439-89-6	10 (TWA) (as iron oxide fume)	5 (TWA)(R) (as iron oxide dust or fume)
Manganese	7439-96-5	5 (C)	0.02 (TWA)(R) 0.1 (TWA)(I)
Nickel Elemental Insoluble Oxide***	7440-02-0	1 (TWA) 1 (TWA) 1 (TWA)	1.5 (TWA)(I) 0.2 (TWA) (I) 0.2 (TWA) (I)
Silicon	7440-03-1	15 (TWA) 5 (TWA) (R)	NE
Silica, respirable crystalline	14808-60-7	0.05 (TWA)****(R)	0.025 (TWA) (R)

Tin	7440-31-5	2 (TWA)	2 (TWA)
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## NOTES

\* The following State OSHA Plans have adopted lower Permissible Exposure Limits (PELs) for some of the constituents in this product:

**California:** Chromium- 0.5 mg/m<sup>3</sup> (TWA); Manganese- 0.2 mg/m<sup>3</sup> (TWA); Nickel, metal -0.5 mg/m<sup>3</sup> (TWA)

**Minnesota:** Manganese fume- 1 mg/m<sup>3</sup> (TWA); Total Welding Fumes- 5 mg/m<sup>3</sup> (TWA).

**Michigan:** Chromium- 0.5 mg/m<sup>3</sup> (TWA); manganese fume- 1 mg/m<sup>3</sup> (TWA); Total Welding Fumes- 5 mg/m<sup>3</sup> (TWA).

**Oregon:** Chromium- 0.5 mg/m<sup>3</sup> (TWA)

\*\* When chromium is heated to high temperatures, which may occur during welding and thermal cutting of this product, it may oxidize to form hexavalent chromium. In the product as sold, chromium is in the elemental form.

\*\*\* When nickel is heated to high temperatures, which may occur during welding and thermal cutting of this product, it may form nickel oxides. In the product as sold, nickel is in the elemental form.

\*\*\*\* This OSHA PEL takes effect in June, 2018. Until then, or if the OSHA Respirable Crystalline Silica Standard (1910.1053) is stayed or otherwise not enforced, the PEL-TWA in Federal OSHA jurisdictions and in some state jurisdictions is calculated using the following formula:  $PEL (mg/m^3) = 10\% \text{ quartz} + 2$  and applies with when the quartz content of the air sample exceeds 1%.

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## Exposure Limit Abbreviations

ACGIH TLV American Conference of Governmental Industrial Hygienists Threshold Limit Value® (2017)

C Ceiling Limit

I Inhalable fraction of particulate

mg/m<sup>3</sup> Milligram of substance per cubic meter of air

NE None Established

OSHA PEL Occupational Health and Safety Administration Permissible Exposure Limit

R Respirable fraction of particulate

STEL Short Term Exposure Limit

TWA Time Weighted Average

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## Appropriate Engineering Controls

As sold no special control measures are necessary. If dust and/or fumes are released when processes such as machining, grinding, drilling, melting, casting, sawing, blasting, polishing, buffing, brazing, soldering, welding or thermal cutting are performed, adequate ventilation should be used to control exposures to dusts and fumes below their applicable occupational exposure limits. Industrial hygiene sampling should be used to determine what specific corrective actions may be needed. Take appropriate precautions to prevent fires and explosion when hot work is performed. Do not eat, smoke or drink when performing the tasks listed above.

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## Personal Protective Equipment (PPE)

### Eye Protection

Wear safety glasses with side-shields if there is a risk of particles getting in eyes. Welding and thermal cutting of this product can generate ultraviolet and infrared radiation. Select appropriate welding shades to prevent eye injury.

### Skin Protection

No chemical protective clothing is required. During use of this product, other hazards such as ultraviolet radiation, infrared radiation, hot metal and sparks may be generated. Use appropriate protective clothing and gloves for the application.

### **Respiratory Protection**

As sold, no respiratory protection is expected to be necessary. If dust and/or fumes are released when processes such as machining, grinding, drilling, melting, casting, sawing, blasting, polishing, buffing, brazing, soldering, welding or thermal cutting are performed, respiratory protection may be necessary if the concentrations of the hazardous substances listed in the above Table exceed the applicable occupational exposure limits. In these cases, a National Institute of Occupational Safety & Health (NIOSH) approved respirator should be selected based on the form and concentration of the contaminant in air.

## **SECTION 9: PHYSICAL & CHEMICAL PROPERTIES**

<b>Appearance</b>	Solid, gray colored material
<b>Odor</b>	Not applicable
<b>Odor threshold</b>	Not applicable
<b>pH</b>	Not applicable
<b>Melting Point</b>	~2350°F (1300°C)
<b>Boiling point</b>	5000°F (2750°C) for iron
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Flammability</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limits</b>	Not applicable
<b>Vapor Pressure</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Relative Density</b>	Not applicable
<b>Solubility in Water</b>	Insoluble
<b>Partition Coefficient</b>	Not applicable
<b>Auto-Ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not applicable
<b>Viscosity</b>	Not applicable

## **SECTION 10: STABILITY & REACTIVITY**

### **Reactivity**

Inert, not reactive

### **Chemical Stability**

Stable

### **Possibility of Hazardous Reactions**

None known with the product as sold.

### **Conditions to avoid**

None known

### **Incompatible Materials**

None known

### **Hazardous Decomposition Products**

Welding and thermal cutting on casting may generate oxides of the metals listed in Section 3.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

This product is an article as sold. Dust or fumes generated from machining, grinding, drilling, melting, casting, sawing, blasting, polishing, buffing, brazing, soldering, welding or thermal cutting of the product may produce airborne contaminants that are hazardous. Information about these components is supplied.

### Acute Toxicity

The constituents do not meet the criteria to be classified in this category.

<b>Carbon:</b>	Rat (oral) LD50 = 2000 mg/kg
<b>Chromium:</b>	Rat (oral) LD50 >5000 mg/kg; Rat (Inhalation) LC50 (4 hr) = 5.41 mg/L air
<b>Copper:</b>	Rat (oral) LD50 = 300–2,500 mg/kg; Rat LC50 (4 hr) = 5.11 mg/L air; Rat (dermal) LD50 = 2000 mg/kg
<b>Hexavalent Chromium:</b>	Rat (oral) LD50 = 52 mg/kg; Rat (inhalation) LC50 (4 hr) = 99–262 mg/m <sup>3</sup> , Rabbit (dermal) LD50 = 57 mg/kg
<b>Iron:</b>	Rat (oral) LD50 = 98.6–1060 g/kg; Rat (inhalation) LC50 (6 hr) = 250 mg/m <sup>3</sup> air
<b>Manganese:</b>	Rat (oral) LD50 > 2000 mg/kg; Rat (inhalation) (4 hr) LC50 > 5.14 mg/L
<b>Nickel:</b>	Rat (oral) LD50 >9000 mg/kg
<b>Silicon:</b>	Rat (oral) LD50 = 3160 mg/kg

LD50 = Lethal Dose of the substance at which 50% of the exposed test population is killed within a given period of time.  
LC50 = Lethal Concentration of the substance at which 50% of the exposed test population is killed within a given period of time.

### Skin Corrosion/Irritation

The constituents do not meet the criteria to be classified in this category.

### Serious Eye Damage or Irritation

Dusts and fumes may cause eye irritation but the constituents do not meet the criteria to be classified in this category.

### Respiratory or Skin Sensitization

#### Nickel and Hexavalent Chromium

May cause allergic skin sensitization.

### Germ Cell Mutagenicity

#### Nickel

Chromosomal aberrations and in vitro and in vivo testing has shown that nickel is genotoxic (ATSDR); data is insufficient for classification.

### Carcinogenicity

#### Carbon

Not listed by IARC, NTP or OSHA

#### Chromium

Metallic chromium is not listed by IARC, NTP or OSHA. When chromium is heated to high temperatures such as those that occur in welding arcs or during thermal cutting processes, it can oxidize to form hexavalent chromium. In the product as sold, chromium is in the elemental form. Hexavalent chromium is listed by IARC (possibly carcinogenic to humans—Group 2BA) and NTP (known human carcinogen).

#### Copper

Not listed by IARC, NTP or OSHA

#### Iron

Not listed by IARC, NTP or OSHA

#### Manganese

Not listed by IARC, NTP or OSHA

#### Nickel

Listed by IARC (possibly carcinogenic to humans—Group 2BA) and NTP (known human carcinogen). The increased risk of lung and sinus cancer varies with the form of nickel. There is no evidence that metallic nickel is associated with nasal or lung cancer (ATSDR, ECHA).

#### Silicon

Not listed by IARC, NTP or OSHA

#### Silica, Respirable Crystalline

Listed as a carcinogen by IARC 1 (Carcinogenic to Humans), NTP (Known to be a human carcinogen) and OSHA. Respirable crystalline silica has been associated with an increased risk of lung cancer.

#### Tin

Not listed by IARC, NTP or OSHA



## Abbreviations

ASTDR	US Agency for Toxic Substances & Disease Registry (US Dept. Health & Human Services)
ECHA	European Chemicals Agency
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program (U.S. National Institute of Environmental Health Sciences)
OSHA	U.S. Occupational Safety and Health Administration

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## Reproductive Toxicity

### Nickel

Some studies indicate there may be effects on fertility but the data do not meet the criteria to be classified in this category.

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## Specific Target Organ Toxicity-Single Exposure (SE)

### Copper

There are reports of copper fume causing "metal fume fever" resulting in symptoms of with a burning sensation, throat irritation, coughing, shortness of breath, nausea, aches and fever. These studies lack adequate exposure data and clear evidence that copper fumes caused metal fume fever. The data is inadequate for classification.

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## Specific Target Organ Toxicity-Repeated Exposure

### Hexavalent Chromium

Chrome ulcers, nasal septum holes, inflammation of the nasal mucosa and throat, chronic bronchitis, kidney and liver effects have been reported in chrome workers. The effects result in a Specific Target Organ Toxicity-Repeat or Prolonged Exposure (STOT-RE) Category 1 classification.

### Iron

Prolonged exposure may lead result in iron deposits in the lung, a condition known as siderosis but this effect but does not meet the criteria to be classified in this category.

### Manganese

Inflammatory changes in the lung were found in monkeys exposed to manganese dioxide via inhalation for 10 months. At high exposure levels (greater than 5 mg/m<sup>3</sup>), manganism (chronic manganese poisoning) has been reported in workers. Symptoms of manganism include sleepiness, weakness in the legs, a mask-like facial appearance, emotional disturbances and a spastic gait. High levels of pneumonia have also been reported in workers inhaling large amounts of manganese dust and fume. In some studies, manganese has been associated with longer reaction times, hand steadiness and eye-hand coordination. Effects appear to be more pronounced with exposures to respirable sized particles. These effects result in a STOT-RE Category 2 classification.

### Nickel (elemental and nickel oxide)

Animal studies have shown lung changes and inflammation following inhalation exposure. Effects vary with the form of nickel used in the studies, animal species and route of administration. There have been case reports of occupational asthma, pulmonary fibrosis and pulmonary edema in workers, however, exposure data is lacking. The animal studies result in a STOT-RE Category 1 classification.

### Silica, Respirable Crystalline

Prolonged and repeated exposure to respirable crystalline silica may cause silicosis. Respirable crystalline silica may also cause immune system effects and kidney effects.

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## Aspiration Hazard

Based on the physical form, the product is not expected to be an aspiration hazard.

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

Ecotoxicity is expected to be minimal since the product as sold is a solid with low water solubility. Dust generated and/or collected from further processing of the casting may be toxic to the environment.

### Persistence and Degradation

Not applicable

### Bioaccumulation

Not applicable

**Mobility in Soil**

Not applicable

**Environmental Fate**

Not applicable

**SECTION 13: DISPOSAL INFORMATION**

Recover or recycle castings or dispose of according to federal, state and local regulations. Dust collected from product processing operations may be classified as a hazardous waste. Dispose of such dust in accordance with federal, state and local regulations.

**SECTION 14: TRANSPORTATION INFORMATION****U.S. Department of Transportation (DOT)**

Product is not regulated

**International Maritime Dangerous Goods (IMDG)**

Product is not regulated

**Transport in bulk according to Annex II of MARPOL 73/78 (Marine Pollution) and the International Bulk Chemical (IBC) Code**

Product is not regulated

**International Civil Aviation Org. (ICAO) / International Air Transport Assoc. (IATA)**

Product is not regulated

**SECTION 15: REGULATORY INFORMATION**

This product is an article as sold. If this product is further processed, the regulatory status of the components listed in the composition section of this sheet may be altered. The following regulatory information may not be complete and should not be relied upon as the sole source of information regarding regulatory responsibilities.

**Occupational Health and Safety Administration**

This product is an article as sold. Dust or fumes generated by further processing of the product may produce airborne contaminants that are regulated by OSHA. These are listed in Section 8.

**TSCA Chemical Inventories**

This product is an article as defined by Toxic Substances Control Act (TSCA) regulations, and is exempt from TSCA Inventory listing requirements

**Other Regulatory Information**

Substance	CAS #	CERCLA RQ (lbs)	Section 313	NPRI Threshold Category	California Prop 65
Chromium	7440-47-3	5,000	313	1A	Carcinogen (hexavalent form only)
Copper	7440-50-8	5,000	313		
Iron	7439-89-6				
Manganese	7439-96-5		313	1A	
Nickel	7440-02-0	100	313	1A	Carcinogen

**Notes**

**CAS** = Chemical Abstract Service Registry Number, a 7-digit identifier.

**CERCLA RQ** = Comprehensive Environmental Response, Compensation & Liability Act of 1980, Reportable Quantity. If a value is listed then releases of particles,  $\leq 100 \mu\text{m}$  in size, to the environment may require reporting under CERCLA Sections 102–103 (40 CFR Part 302).

**EINECS** = European Inventory of Existing Commercial Chemical Substances, a 7-digit identifier.

**NPRI** = National Pollutant Release Inventory Threshold Category, if 1A or 1B is listed, may be subject to reporting under the Canadian Environmental Protection Act, 1999.

**Prop 65** = Proposition 65, if listed in the table above: WARNING: This product contains chemicals known to the State of California to cause cancer.

**Section 313** = if '313' is listed, may be subject to the reporting requirements found under Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 (40 CFR Part 372).

These products are not believed to contain any substances that meet the notification requirements found under EPCRA Sections 302 or 304 (40 CFR Part 355) nor subject to the accidental release prevention requirements under CAA 112(r) (40 CFR Part 68).

## SECTION 16: OTHER INFORMATION

**DATE PREPARED:** October 2017

**PREPARER:** American Foundry Society, Inc. Occupational Safety & Health Committee (10-Q)

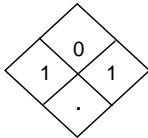



This SDS is intended to be used as a guide to the appropriate handling, storage, and use of this product by an adequately trained person. The American Foundry Society, Inc. is not responsible for the misuse, mishandling or improper storage of this material by the user.

The AMERICAN FOUNDRY SOCIETY, INC. neither makes, nor offers nor shall be held liable for any express or implied warranties, including any warranties of merchantability and fitness for a particular purpose with respect to the use of the information provided.

Abbreviations used on this Safety Data Sheet:

N/av. = Not available, N/ap. = Not applicable, ppm = parts per million, TLV = Threshold Limit Value.

NFPA Hazard Rating: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-None, X-Blank

SECTION I - IDENTIFICATION OF THE MATERIAL AND SUPPLIER					
PRODUCT NAME:	Kozy Kitty Clumping Litter				4 - extreme 3 - high 2 - moderate 1 - slight 0 - insignificant
OTHER NAMES:	Montmorillonite				
MATERIAL USE:	Clumping Cat Litter				
MANUFACTURER'S NAME:	Absorbent Products Ltd			NFPA HAZARD RATING:	
STREET ADDRESS:	724 East Sarcee St.			Health - 1, Flammability - 0, Reactivity - 1	
CITY/PROVINCE:	Kamloops, BC				
POSTAL CODE:	V2H 1E7				
EMERGENCY TELEPHONE NUMBER:	1-800-667-0336				
SECTION II - HAZARD IDENTIFICATION					
<p><b>SUMMARY:</b> Prolonged and repeated exposure to excessive concentrations of bentonite dust, or any nuisance dust, can cause chronic pulmonary disease. Dust contact with eyes may cause temporary scratchiness or redness. Long term exposure to airborne bentonite dust containing respirable size (<math>\leq 10 \mu</math>) quartz/cristobalite particles, where respirable quartz/cristobalite particle levels are higher than TLV's, may lead to development of silicosis or other respiratory problems. The NTP (National Toxicology Program) and IARC (International Agency for Research on Cancer) has determined that crystalline silica inhaled from <b>occupational sources</b> can cause cancer in humans. Risk of injury is dependent on the duration and level of exposure. <b>A single exposure will not result in serious adverse effects.</b> The company is not aware of any scientific and medical data available indicating that exposure to dust from this product under conditions of normal use will cause silicosis or cancer, adverse effects would not be expected from normal use of this product.</p>					
 					
<p><b>MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED:</b> Pre-existing upper respiratory and lung disease, such as, but not limited to: Bronchitis, emphysema, and asthma.</p>					
<p><b>TARGET ORGAN(S):</b> Lungs, Eyes.</p>					
<p>See SECTION X1 - TOXICOLOGICAL INFORMATION</p>					
SECTION III - COMPOSITION OF SUBSTANCE					
HAZARDOUS INGREDIENTS	%	CAS NUMBER	OSHA PEL (ACGIH TLV)	LD50/ LC 50 SPECIES AND ROUTE	
Bentonite	Up to 100%	1302-78-9	See Section VIII	N/av.	
Free Crystalline Silica or Silica, quartz Silica, cristobalite (Occurs naturally in Bentonite)	$\leq 8\%$	14808-60-7 14464-46-1	See Section VIII	N/av.	
<p>For sampling silica dusts refer to NIOSH Analytical Method 7500 or OSHA method ID 142</p>					
SECTION IV - FIRST AID MEASURES					
<b>Inhalation:</b>	Remove victim to fresh air. If breathing has stopped, a trained person should perform artificial respiration. Acute inhalation can cause dryness of the nasal passage and congestion of the upper respiratory tract.				
<b>Ingestion:</b>	Do not induce vomiting. Short-term exposure not considered harmful. Drink generous amounts of water to reduce bulk and drying effects.				
<b>Eyes:</b>	Wash with large quantities of water. Consult physician if irritation persists. May cause irritation/inflammation.				
<b>Skin:</b>	May cause dryness. Remove contaminated clothing. Wash with soap and water until clean. Use moisture renewing lotions if dryness persists. Product is not absorbed through or by the skin.				

<b>SECTION V - FIREFIGHTING MEASURES</b>				
<b>Flammability</b>	<b>No</b>			
Means of Extinction	<b>N/ap.</b>	Upper Flammability Limit (% by Volume)		<b>N/ap.</b>
Flashpoint (Method)	<b>Non Flammable</b>	Lower Flammability Limit (% by Volume)		<b>N/ap.</b>
Auto ignition temperature	<b>N/ap.</b>	Extinguishing Media		<b>N/ap.</b>
Hazardous Combustion Products	<b>N/ap.</b>	Special Procedures	<b>Product becomes slippery when wet.</b>	
<b>Explosion Data</b>				
Sensitivity to Impact	<b>No</b>	Sensitivity to Static Discharge		<b>No</b>
<b>SECTION VI - ACCIDENTAL RELEASE MEASURES</b>				
<b>PROCEDURE FOR SPILLS / LEAKS:</b>	Avoid creating further dust. Vacuum with equipment fitted with a filter. Alternatively, moisten and sweep or wash away. <u>Note:</u> Product becomes slippery when wet. Dispose of in accordance with local, State, and Federal Regulations.			
<b>SECTION VII - HANDLING AND STORAGE</b>				
<b>HANDLING PROCEDURES</b>				
Avoid creating dust. Repair or properly dispose of broken bags. Use enclosed handling. Product becomes slippery when wet.				
<b>STORAGE REQUIREMENTS</b>				
Store in a dry place to maintain. Keep containers closed and in good condition. Repair damaged containers.				
<b>SECTION VIII - EXPOSURE CONTROLS AND PERSONAL PROTECTION</b>				
<b>PERMISSABLE EXPOSURE LIMITS:</b>	<b>OSHA PEL</b>	<b>ACGIH</b>	<b>OHS</b>	<b>OHS STEL</b>
(for airborne, nuisance dusts)	8 hr TWA	TLV	8 hr TWA	
Total dust	15 mg/m <sup>3</sup>	Not detected	4 mg/m <sup>3</sup>	n/a
Respirable dust	5 mg/m <sup>3</sup>	Not detected	1.5 mg/m <sup>3</sup>	n/a
Crystalline quartz (respirable)	0.1 mg/m <sup>3</sup>	0.025mg/m <sup>3</sup>	0.025mg/m <sup>3</sup>	n/a
Crystalline cristobalite (respirable)	0.05mg/m <sup>3</sup>	0.025mg/m <sup>3</sup>	0.025mg/m <sup>3</sup>	n/a
<b>EFFECTS OF CHRONIC EXPOSURE TO PRODUCT.</b> Exposure to quantities of crystalline silica respirable dust ( $\leq 10 \mu$ ), in the forms of quartz, cristobalite or tridymite, may occur when in the presence of airborne dust. If the dust concentration levels are in excess of the OSHA Permissible Limit (PEL-TWA 8hrs) of 0.1mg/m <sup>3</sup> or the ACGIH Threshold Limit Value (TLV) of 0.025mg/m <sup>3</sup> , the crystalline silica present is a known cause of silicosis, a progressive, sometimes fatal, lung disease. From the International Agency for Research on Cancer (IARC), a 2012 review of "Silica Dust, Crystalline, in the form of Quartz or Cristobalite" coded Monograph 100C concluded that Crystalline silica in the form of quartz or cristobalite dust is carcinogenic to humans (Group 1).				
<b>ENGINEERING CONTROLS (SPECIFY, E.G. VENTILATION, ENCLOSED PROCESS)</b>				
Control within recommended TLV/PEL, mechanical filtration to minimize dust. Refer to ACGIH publication "Industrial Ventilation" or similar publications for design of ventilation systems.				
<b>PERSONAL PROTECTIVE EQUIPMENT</b>				
<b>GLOVES</b>	Not needed under normal conditions of use.			
<b>EYE</b>	Use protective goggles in high dust conditions.			
<b>FOOTWEAR</b>	As required on jobsite.			
<b>CLOTHING</b>	Wear coveralls in high dust conditions.			
<b>RESPIRATOR</b>	Avoid breathing dust. See instructions below			
Bureau of Mines or NIOSH approved respirators for protection against pneumoconiosis producing dusts recommended when dust is present. If the dust concentration is less than ten (10) times the Permissible Exposure Limit (PEL) use quarter or half mask respirator (N95) with replacement dust filter or single use dust respirator with valve. If dust concentration is greater than ten (10) times and less than one hundred (100) times the PEL use full faceplate respirator with replaceable dust filter (N95 filter); if greater than one hundred (100) and less than two hundred (200) times the PEL use power air purifying (positive pressure) respirator with replaceable filter (N95 filters); if greater than two hundred (200) times the PEL use type C, automatic-air respirator, continuous flow type (positive pressure), with full face piece, head or helmet.				

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES			
PHYSICAL STATE	solid	ODOR AND APPEARANCE	No odor, buff/beige granules
VAPOR PRESSURE (mm Hg)	N/ap.	DENSITY (20 degrees Celsius)	63lb/cu. ft. +/- 5
VAPOR DENSITY (Air = 1)	N/ap.	SOLUBILITY IN WATER	Insoluble, forms
SPECIFIC GRAVITY (Water=1)	2.3		colloidal suspension
FREEZING POINT	N/ap.	pH	8.5-9.5 (10% slurry)
BOILING POINT	N/ap.	EVAPORATION RATE	N/ap.
SECTION X - STABILITY AND REACTIVITY			
CHEMICAL STABILITY (IF NO, UNDER WHICH CONDITIONS)	YES	X	
	NO		
INCOMPATIBILITY WITH OTHER SUBSTANCES (IF YES, SPECIFY)	YES	X	Hydrofluoric acid - silica may react violently
	NO		
REACTIVITY, AND UNDER WHAT CONDITIONS	N/ap.		
HAZARDOUS DECOMPOSITION PRODUCTS	N/ap.		
CONDITIONS TO AVOID	None in Designed Use		
SECTION XI - TOXICOLOGICAL INFORMATION			
<b>PRIMARY ENTRY ROUTE(S):</b>			
<b>Eyes:</b>	May cause temporary irritation or inflammation.		
<b>Skin:</b>	May cause dryness with continued exposure.		
<b>Ingestion:</b>	Not considered harmful, by mouth, throat, and/or stomach. Minor irritation may occur.		
<b>Inhalation:</b>	Persistent dry cough, throat irritation and labored breathing on exertion are symptomatic of exposure to airborne dust. Exposure may aggravate existing upper respiratory tract diseases such as asthma, bronchitis or emphysema. <b>Acute (short term)</b> exposure to dust levels exceeding the PEL may cause irritation of respiratory tract resulting in a dry cough. Eyes may develop redness and become itchy. <b>Chronic (long term)</b> exposure to crystalline silica contained by airborne respirable bentonite dust, where levels are higher than TLV's, may lead to the development of silicosis, other respiratory problems, or some forms of cancer. From the International Agency for Research on Cancer (IARC), in a 2012 review of SILICA DUST, CRYSTALLINE, IN THE FORM OF QUARTZ OR CRISTOBALITE (monograph 100C) concluded that "Crystalline Silica in the form of quartz or cristobalite dust is <i>carcinogenic to humans</i> (group 1)." The NTP (National Toxicology Program) has determined that "Respirable crystalline silica, primarily quartz dust occurring <b>in industrial and occupational settings</b> , is known to be a human carcinogen."		
SECTION XII - ECOLOGICAL INFORMATION			
Product is generally considered chemically inert in the environment. Used product that has become contaminated may have significantly different characteristics than uncontaminated product, and should be re-evaluated accordingly. Dispose of in accordance with Local, State, and Federal regulations.			
SECTION XIII - DISPOSAL CONSIDERATIONS			
Uncontaminated waste is not hazardous as defined by the Resource Conservation and Recovery Act (RCRA, 40 CFR261). Contaminated waste must be evaluated based on contamination source. Consult local agencies as needed. Dispose of in accordance with Local, State, and Federal regulations.			
SECTION XIV - TRANSPORTATION INFORMATION			
DOT Shipping Name: Not Regulated by DOT		Canada TDG: Not Regulated by TDG	
DOT Hazard Class:	n/a	Hazard Class:	n/a
Identification #:	n/a	UN #:	n/a

<b>SECTION XV - REGULATORY INFORMATION</b>							
<b>OSHA:</b> This material is considered hazardous. See section XI.	<b>WHMIS:</b> Uncontrolled product according to WHMIS classification criteria						
<b>EINECS:</b> Not Listed	<b>CND DSL:</b> This product is listed on the DSL						
<b>TSCA:</b> This material is listed in the TSCA inventory and is not otherwise regulated by TSCA sec 4,5,6,7, or 12	<b>NTP:</b> "Respirable crystalline silica, primarily quartz dust occurring in industrial and occupational settings, is know to be a human carcinogen."						
<b>Calif Prop 65:</b> Listed: Crystalline Silica (airborne particles of respirable size)	<b>RCRA:</b> This material is not defined as hazardous waste						
<b>SECTION XVI - OTHER INFORMATION</b>							
<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">PREPARED BY:</td> <td style="width: 20%;">PHONE NUMBER</td> <td style="width: 20%;">DATE</td> </tr> <tr> <td><b>Quality Control Staff, Absorbent Products Ltd.</b></td> <td><b>1-800-667-0336</b></td> <td><b>June, 2015</b></td> </tr> </table>		PREPARED BY:	PHONE NUMBER	DATE	<b>Quality Control Staff, Absorbent Products Ltd.</b>	<b>1-800-667-0336</b>	<b>June, 2015</b>
PREPARED BY:	PHONE NUMBER	DATE					
<b>Quality Control Staff, Absorbent Products Ltd.</b>	<b>1-800-667-0336</b>	<b>June, 2015</b>					
<p>All information presented herein is believed to be accurate; however, it is the user's responsibility to determine in advance of need that the information is current and suitable for their circumstances. No warranty or guarantee, expressed or implied is made by Absorbent Products Ltd., as to the information, or as to the safety, toxicity or the effect of this product.</p>							

# PFC400 Series Plumber's Siliconized Acrylic Caulk Kitchen & Bath



## Description

**PROFLO PLUMBERS SILICONIZED ACRYLIC CAULK** is a multi-purpose adhesive sealant for use on interior or exterior applications.

**PROFLO PLUMBERS** has excellent adhesion to most materials used in kitchen and bathroom construction. It forms a tough, durable, pliable seal, and cured sealant is mold and mildew resistant. Water clean-up and low odor.

## MODEL Number

<b>PFC401ALM</b>	5.5 oz squeeze tube, Almond
<b>PFC401BIS</b>	5.5 oz squeeze tube, Biscuit
<b>PFC401CLR</b>	5.5 oz squeeze tube, Clear
<b>PFC401WHT</b>	5.5 oz squeeze tube, White

## PROMINENT FEATURES

- Excellent adhesion with lasting flexibility
- Easy Soap and water clean-up
- Interior/Exterior
- Cured sealant is mildew resistant

## Basic Uses

PROFLO siliconized acrylic caulk can be used around tubs, wash stands, shower doors, windows, fixtures, as an adhesive for resetting loose tiles, and as replacement grout.

## Coverage

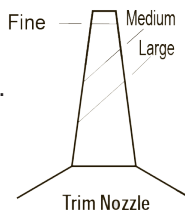
A 1/8"x1/4" bead will yield approximately 27 linear feet of sealant per 5.5 oz squeeze tube.

## Surface Preparation

All surfaces must be firm and free of dirt, oil, grease, efflorescence, mildew and all loose material. Wire brush unsound masonry for a firm surface. Apply only when sealant and surface temperatures are above 50°F (10°C). To remove mildew, scrub with a solution of 3 heaping teaspoonful of Trisodium Phosphate (TSP), 1 quart of Hypochlorite Household bleach and 3 quarts of warm water (wear protective goggles and impervious gloves. Follow manufacturer's directions when working with cleaning solutions). Rinse thoroughly and allow to dry.

## Method of Application

1. Remove cap and cut nozzle at a 45° angle to desired thickness to bead. Apply by squeezing tube. Use a steady pressure to completely fill gaps.
2. For a neat appearance, smooth bead with a brush or cloth.
3. For best results, cured beads should be between 1/8"-1/2" wide and 1/8-1/4" deep. Important: Use Backer Rod if joint exceeds 1/2" x 1/2".
4. Remove excess material before cure with a moistened cloth. Clean up tools with water.
5. May be painted when dry (generally within 4 to 6 hours, depending on climatic conditions).
6. Do not apply when rain is expected. Not intended for underwater use. Protect from moisture for at least 24 hours for proper cure.



## Clean-up

Clean all equipment immediately after use with warm, soapy water.

## STORAGE AND WARRANTY PERIOD

The warranty period is 12 months from date of shipment if stored in the original unopened container at or below 80°F (27°C).



## Limitations

- Do not use for structural repairs.
- Do not use below grade or under water.
- Not recommended for food surfaces.
- Application should be made when temperature of air and surface is 50°F. (10°C.) or above for a 24 hour period.
- If rain or threatening weather is expected within 8 hours, delay application until dry conditions exist.
- Allow new concrete to cure for 30 days before applying. After 30 days, test for alkali presence.
- Do not apply if pH is above 10.
- Do not apply if relative humidity is above 90%.
- Do not freeze.

## LIMITED WARRANTY

If, when applied as directed, this material peels, cracks or separates, it will be replaced without charge upon presentation of proof of purchase and this used cartridge. This limited warranty applies only to residential use and damages, including consequential damage and other remedies, are excluded. No other warranties apply, including fitness for particular purpose.

**CAUTION!**  
**DO NOT TAKE INTERNALLY.**  
**KEEP OUT OF REACH OF CHILDREN.**  
**KEEP FROM FREEZING.**

**CALIFORNIA PROP 65 WARNING:** This product may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. **Wash Hands After Handling.**





# PFC400 Series Plumber's Siliconized Acrylic Caulk Kitchen & Bath



Typical Properties - Supplied	Test method	PFC400 Colored	PFC400 White
% solids by weight	Lab value +/- 1%	66.4	60.4
% solids by volume	Lab value	57	53.15
Viscosity	Semco - 1/8" orific	150000cps	280000cps
Specific Gravity (water = 1)		1.40	1.05
Physical Form	Observation	Smooth Paste	Smooth Paste
Color	Observation		
Odor	Subjective	Ammonia	Ammonia
Tack free time in minutes	ASTM D2377	<60 min.	<60 min.
Tooling time	Lab value	10 min.	20 min.
Paint Over Time		2 hrs	2 hrs
Full Cure Time		24 hrs	3-4 days
Freeze/Thaw Stability	C731	5 cycles	5 cycles
Temperature Application Range		>40°F (5°C)	>40°F (5°C)
Volatile Organic Content Weight %	Calculated	CARB Non-chem curing (n.a.) < 1.5 wt. %	CARB Non-chem curing (n.a.) < 1.5 wt. %
VOC excl. H2O (G/L)		< 38	47.54
Flash Point	Calculated	> 93 °C; 199 °F	> 93 °C; 199 °F
Shelf life		24 month	24 month
Typical Properties - Cured			
Joint Movement Capability	N/A	+/-25%	+/-25%
Temperature Service Range (after cure)		-26°C to 82°C	-26°C to 82°C
Slump inch.	ASTM D2202	0.03	NONE
Durometer hardness	ASTM D2240	23.8	18
Paintable		Latex & Oil Based	Latex & Oil Based
Cleanup		Water	Water



<b>ALT CODE</b>	<b>(OLD)</b>
PFC401ALM	(PF21865)
PFC401CLR	(PFL23994)
PFC401WHT	(PFL23978)

**CAUTION!**  
DO NOT TAKE INTERNALLY.  
KEEP OUT OF REACH OF CHILDREN.  
KEEP FROM FREEZING.

**CALIFORNIA PROP 65 WARNING:** This product may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. **Wash Hands After Handling.**



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Hercules Plumber's Caulk White, Almond/Bone, Biscuit/Linen</b>
<b>Other means of identification</b>	
<b>Product code</b>	7354E
<b>Synonyms</b>	Part Numbers: 25605, 25615, 25631, 25636, 25641, 25641R, 35646
<b>Recommended use</b>	Caulk and sealant for use around tubs, sinks and other plumbing applications.
<b>Recommended restrictions</b>	Do not use on applications where product will be submerged under water.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company Name</b>	HCC Holdings, Inc. an Oatey Affiliate
<b>Address</b>	4700 West 160th Street Cleveland, OH 44135
<b>Telephone</b>	216-267-7100
<b>E-mail</b>	info@oatey.com
<b>Transport Emergency</b>	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)
<b>Emergency First Aid</b>	1-877-740-5015
<b>Contact person</b>	MSDS Coordinator

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not Classified.
<b>Health hazards</b>	Not Classified.
<b>OSHA defined hazards</b>	Not Classified.
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	This material does not meet the criteria for classification
<b>Precautionary statement</b>	
<b>Prevention</b>	Not applicable.
<b>Response</b>	Not applicable.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Not applicable.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Uncured product is irritating to eyes, skin and respiratory system.

## 3. Composition/information on ingredients

### Mixtures

<b>Chemical name</b>	<b>CAS number</b>	<b>%</b>
Plasticizer Polymer Additive	Trade Secret	5 - 10
Distillates (petroleum), hydrotreated light	64742-47-8	1 - 5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

\*Designates that a specific chemical identity and or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

<b>Eye contact</b>	medical attention if symptoms occur. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Ingestion</b>	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Skin or eye irritation.
<b>Indication of immediate medical attention and special treatment needed.</b>	Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>General information</b>	Note to physician, treat symptomatically.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Use dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray (fog).
<b>Unsuitable extinguishing media</b>	water et
<b>Specific hazards arising from the chemical</b>	No specific fire or explosion hazard.
<b>Special protective equipment and precautions for firefighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
<b>Fire fighting equipment/instructions</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
<b>Specific methods</b>	None
<b>General fire hazards</b>	None

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in For non-emergency personnel .
<b>Methods and materials for containment and cleaning up</b>	Large Spills: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal. Small Spills: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.
<b>Environmental precautions</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

## 7. Handling and storage

<b>Precautions for safe handling</b>	Put on appropriate personal protective equipment (see section 8 of SDS). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Distillates (petroleum), hydrotreated light	TWA	200 mg/m <sup>3</sup>

### Biological limit values

No Biological limits.

### Appropriate engineering controls

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

#### Skin protection

##### Hand

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

##### Other

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Respiratory protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

#### Thermal hazards

None.

#### General hygiene considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. Physical and chemical properties

### Appearance

Physical state	Solid.
Form	Paste
Color	White or Off-White.
Odor	Ammonia.
Odor threshold	Not available.
pH	7.7
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not determined
Flash point	199 F ( 93.3 C)
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not available
Flammability limit – upper (%)	Not available
Explosive limit - lower (%)	Not available
Explosive limit - upper (%)	Not available
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	1.50
Solubility(ies)	
Solubility (water)	Not available
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
Viscosity	Not available
Other information	
VOC (Weight %)	1.4% or 37 g/L

## 10. Stability and reactivity

<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	The product is stable.
<b>Possibility of hazardous reaction</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	No specific data.
<b>Incompatible materials</b>	No specific data.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics** No specific data.

### Information on likely routes of exposure

#### Acute Toxicity

Components	Species	Results
------------	---------	---------

<b>Skin corrosion/irritation</b>	Not determined.
<b>Serious eye damage/eye irritation</b>	Not determined.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not considered a respiratory irritant
<b>Skin sensitization</b>	This product is not expected to cause skin irritation.
<b>Germ cell mutagenicity</b>	No specific data
<b>Carcinogenicity</b>	No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	No known significant effects or critical hazards.
<b>Specific target organ toxicity</b>	
<b>Single exposure</b>	Not Classified.
<b>Repeated exposure</b>	Not Classified.
<b>Aspiration Hazard</b>	Contains Distillates (petroleum), hydrotreated – Which is a category 1 Aspiration Hazard. The likely hood of aspirating the product in this form is very low due to the high viscosity.
<b>Chronic effects</b>	Not Classified.

#### Further information

## 12. Ecological information

### Ecotoxicity

Product/ingredient name	Results	Species	Exposure
Distillates (petroleum), hydrotreated light			
	Acute LC50 2,900 µg/l Fresh water	Fish - Rainbow trout, Donaldson trout	96 h
	Acute LC50 2,200 µg/l Fresh water	Fish - Bluegill	96 h

<b>Persistence and degradability</b>	Not Available.
<b>Bio accumulative potential</b>	Not Available.
<b>Mobility in soil</b>	Not available.
<b>Other adverse effects</b>	No known significant effects of critical hazards.

### 13. Disposal considerations

<b>Disposal instructions</b>	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
<b>Local disposal regulations</b>	Not Applicable
<b>Hazardous waste code</b>	Not Applicable

### 14. Transportation information

**DOT** Not Regulated

**UN number**

**UN Proper Shipping Name**

**Transportation Hazard classes**

**Packing group**

**IATA** Not Regulated

**UN number**

**UN Proper Shipping Name**

**Transportation Hazard classes**

**Packing group**

**IMDG** Not Regulated

**UN number**

**UN Proper Shipping Name**

**Transportation Hazard classes**

**Packing group**

**Environmental hazards**

**Marine pollutant**

### 15. Regulatory information

**U.S. Federal regulations**  
**TSCA 12(b) - Chemical export notification:** None required.  
**TSCA 5(a)2 - Final significant new use rules:** Not listed  
**TSCA 5(a)2 - Proposed significant new use rules:** Not listed  
**TSCA 5(e) - Substances consent order:** Not listed

**SARA 311/312**

**Classification** Not applicable

**US state regulations**  
**California Prop 65**

This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

**Canada**

**WHMIS (Canada)**

Class D-2A: Material causing other toxic effects (Very toxic).

**International regulations**

**Country(s) or region**

**Inventory Name**

**On inventory list (yes/no)\***

**Canada**

At least one component not listed in DSL, but all such components are listed in NDSL Domestic Substance List

Yes

**Australia**

Australian Inventory of Chemical Substances (AICS)

Not Determined

**China**

Inventory of Existing Chemical Substances in China (IECSC)

Not Determined

**United States & Puerto Rico**

Toxic Substances Control Act (TSCA 8b)

Yes

**16. Other information, including date of preparation or last revision****Issue Date** 12-May-2015**Revision Date** -**Version #** 01**HMIS Rating** Health: 1  
Flammability: 1

Physical Hazards: 0

**Disclaimer** HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.




# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Hercules Plumber's Caulk –Silicone White and Clear</b>	
<b>Other means of identification</b>		
<b>Product code</b>	7357E	
<b>Synonyms</b>	Part Numbers: White – 25676, Clear - 25686	
<b>Recommended use</b>	Caulk and sealant for use around tubs, sinks and other plumbing applications.	
<b>Recommended restrictions</b>	Do not use on applications where product will be submerged under water.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Company Name</b>	HCC Holdings, Inc. an Oatey Affiliate	
<b>Address</b>	4700 West 160th Street Cleveland, OH 44135	
<b>Telephone</b>	216-267-7100	
<b>E-mail</b>	info@oatey.com	
<b>Transport Emergency</b>	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)	
<b>Emergency First Aid</b>	1-877-740-5015	
<b>Contact person</b>	MSDS Coordinator	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not Classified.	
<b>Health hazards</b>	Skin Corrosion/Irritation	Cat 2
<b>OSHA defined hazards</b>	Not Classified.	
<b>Label elements</b>		
<b>Hazard symbol</b>		
<b>Signal word</b>	Warning	
<b>Hazard statement</b>	Causes Skin Irritation	
<b>Precautionary statement</b>		
<b>Prevention</b>	Wear protective gloves. Wash hands thoroughly after handling.	
<b>Response</b>	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention.	
<b>Storage</b>	Not applicable.	
<b>Disposal</b>	Not applicable.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	Generates acetic acid during cure. Uncured product is irritating to eyes, skin, and respiratory system. Generates acetic acid during cure.	

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
Silanetriol, 1-methyl-, 1,1,1-triacetate	4253-34-3	1 - 5
Distillates (petroleum), hydrotreated middle	64742-46-7	10 - 30
Titanium Dioxide (White Sealant Only)	13463-67-7	0 - 5
Dimethyl siloxane, hydroxyl terminated	70131-67-8	70 - 90



There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

#### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Skin contact</b>	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Eye contact</b>	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Ingestion</b>	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Most important symptoms/effects, acute and delayed</b>	Skin or eye irritation.
<b>Indication of immediate medical attention and special treatment needed.</b>	Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>General information</b>	Note to physician, treat symptomatically.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Use dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray (fog).
<b>Unsuitable extinguishing media</b>	water et
<b>Specific hazards arising from the chemical</b>	No specific fire or explosion hazard.
<b>Special protective equipment and precautions for firefighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
<b>Fire fighting equipment/instructions</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
<b>Specific methods</b>	None
<b>General fire hazards</b>	None

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in For non-emergency personnel .
<b>Methods and materials for containment and cleaning up</b>	Large Spills: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal. Small Spills: Move containers from spill area. Vacuum or sweep up material and place in a

designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

#### Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

## 7. Handling and storage

#### Precautions for safe handling

Put on appropriate personal protective equipment (see section 8 of SDS). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

#### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

#### Occupational exposure limits

##### US. ACGIH Threshold Limit Values

Components	Type	Value
Petroleum Distillate	TWA	5 mg/m <sup>3</sup>

##### US OSHA Permissible Exposure Limits

Components	Type	Value
Petroleum Distillate	TWA	5 mg/m <sup>3</sup>

#### Biological limit values

No Biological limits.

#### Appropriate engineering controls

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

##### Skin protection

###### Hand

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

###### Other

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Respiratory protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

##### Thermal hazards

None.

##### General hygiene considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. Physical and chemical properties

#### Appearance

Hercules Plumbers Caulk – Silicone - White and Clear  
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SDS US  
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<b>Physical state</b>	Solid.
<b>Form</b>	Paste
<b>Color</b>	White or translucent.
<b>Odor</b>	Acetic acid/vinegar smell
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not applicable.
<b>Melting point/freezing point</b>	Not applicable.
<b>Initial boiling point and boiling range</b>	Not determined
<b>Flash point</b>	199 F ( 93.3 C)
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%)</b>	Not available
<b>Flammability limit – upper (%)</b>	Not available
<b>Explosive limit - lower (%)</b>	Not available
<b>Explosive limit - upper (%)</b>	Not available
<b>Vapor pressure</b>	Not applicable
<b>Vapor density</b>	Not applicable
<b>Relative density</b>	1.04 – 1.09
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	Not available
<b>Viscosity</b>	Not available
<b>Other information</b>	
<b>VOC (Weight %)</b>	36 g/L (< 2.8% by weight)

## 10. Stability and reactivity

<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	The product is stable.
<b>Possibility of hazardous reaction</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	No specific data.
<b>Incompatible materials</b>	No specific data.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Acute Toxicity estimates: 10 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Eye – Pain, irritation, watering Inhalation – No specific data. Skin Contact – Irritation, redness Ingestion – No specific data.

### Information on likely routes of exposure

#### Acute Toxicity

Components	Species	Results
Product		
Skin	Rabbit	Moderate Irritant
Eyes	Rabbit	Mild Irritant

**Skin corrosion/irritation** Moderate Irritant.

<b>Serious eye damage/eye irritation</b>	Mild Irritant.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not considered a respiratory irritant
<b>Skin sensitization</b>	This product is not expected to cause skin irritation.
<b>Germ cell mutagenicity</b>	No specific data
<b>Carcinogenicity</b>	Sufficient evidence of carcinogenicity in inhalation studies with animals for titanium dioxide exist. However, due to the titanium dioxide being inextricably bound in the silicone matrix, the likelihood of exposure is minimal.
<b>IARC</b>	Titanium Dioxide – 13463-67-7 Group 2B: Possibly carcinogenic to humans.
<b>OSHA</b>	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>NTP</b>	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>Reproductive toxicity</b>	No known significant effects or critical hazards.
<b>Specific target organ toxicity</b>	
<b>Single exposure</b>	Contains Silanetriol, 1-methyl-, 1,1,1-triacetate. This is a Category 3, respiratory irritant.
<b>Repeated exposure</b>	
<b>Aspiration Hazard</b>	Contains Distillates (petroleum), hydrotreated – Which is a category 1 Aspiration Hazard. The likelihood of aspirating the product in this form is very low due to the high viscosity.
<b>Chronic effects</b>	Not Classified.
<b>Further information</b>	

## 12. Ecological information

### Ecotoxicity

Product/ingredient name	Results	Species	Exposure
Petroleum Distillates	Acute LC50 2,900 µg/l Fresh water	Fish - Rainbow trout, Donaldson trout	96 h
	Acute LC50 2,200 µg/l Fresh water	Fish - Bluegill	96 h

<b>Persistence and degradability</b>	Not Available.
<b>Bio accumulative potential</b>	Not Available.
<b>Mobility in soil</b>	Not available.
<b>Other adverse effects</b>	No known significant effects of critical hazards.

## 13. Disposal considerations

<b>Disposal instructions</b>	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
<b>Local disposal regulations</b>	Not Applicable
<b>Hazardous waste code</b>	Not Applicable

## 14. Transportation information

<b>DOT</b>	Not Regulated
<b>UN number</b>	
<b>UN Proper Shipping Name</b>	
<b>Transportation Hazard</b>	

classes	
Packing group	
IATA	Not Regulated
UN number	
UN Proper Shipping Name	
Transportation Hazard classes	
Packing group	
IMDG	Not Regulated
UN number	
UN Proper Shipping Name	
Transportation Hazard classes	
Packing group	
Environmental hazards	
Marine pollutant	

## 15. Regulatory information

U.S. Federal regulations	<b>TSCA 12(b) - Chemical export notification:</b> None required. <b>TSCA 5(a)2 - Final significant new use rules:</b> Not listed <b>TSCA 5(a)2 - Proposed significant new use rules:</b> Not listed <b>TSCA 5(e) - Substances consent order:</b> Not listed	
SARA 311/312		
Classification	Immediate (acute) health hazard,	
US state regulations		
California Prop 65	This product does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.	
Canada		
WHMIS (Canada)	Class D-2B: Material causing other toxic effects (Toxic).	
International regulations		
Country(s) or region	Inventory Name	On inventory list (yes/no)*
Canada	DSL/NDSL	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA 8b)	Yes

At least one component is not listed in the DSL, but all such components are listed in the NDSL.

## 16. Other information, including date of preparation or last revision

Issue Date	12-May-2015
Revision Date	-
Version #	01
HMIS Rating	Health: 1 Flammability: 1 Physical Hazards: 0
Disclaimer	HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, in ury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



## 1. Identification

<b>Product identifier</b>	<b>Hercules Clobber</b>	
<b>Other means of identification</b>		
<b>SDS number</b>	7342E	
<b>Synonyms</b>	Part Numbers: 20205, 20211	
<b>Recommended use</b>	Emergency Drain Opener	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Company Name</b>	HCC Holdings, Inc. an Oatey Affiliate	
<b>Address</b>	4700 West 160th Street Cleveland, OH 44135	
<b>Telephone</b>	216-267-7100	
<b>E-mail</b>	info@oatey.com	
<b>Transport Emergency</b>	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)	
<b>Emergency First Aid</b>	1-877-740-5015	
<b>Contact person</b>	MSDS Coordinator	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger	
<b>Hazard statement</b>	Causes severe skin burns and eye damage.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dusts or mists.	
<b>Response</b>	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
<b>Storage</b>	Store locked up.	
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.	

## 3. Composition/information on ingredients

### Mixtures

<b>Chemical name</b>	<b>CAS number</b>	<b>%</b>
Sulfuric acid 96-98.5%	7664-93-9	60-100
Water	7732-18-5	5-10

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Powder. Foam. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Water. Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	This product is miscible in water. Should not be released into the environment.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage. Avoid release to the environment. Do not empty into drains.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sulfuric acid 96-98.5% (CAS 7664-93-9)	PEL	1 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Sulfuric acid 96-98.5% (CAS 7664-93-9)	TWA	0.2 mg/m <sup>3</sup>	Thoracic fraction.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sulfuric acid 96-98.5% (CAS 7664-93-9)	TWA	1 mg/m <sup>3</sup>

#### Biological limit values

No biological exposure limits noted for the ingredient(s).

#### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

##### Skin protection

###### Hand protection

Wear appropriate chemical resistant gloves.

###### Other

Wear appropriate chemical resistant clothing.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

##### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

#### General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

#### Appearance

Translucent.

##### Physical state

Liquid.

##### Form

Liquid.

##### Color

Dark brown.

#### Odor

Rotten eggs. (Hydrogen sulfide odor).

#### Odor threshold

Not available.

#### pH

0.9 1% solution

#### Melting point/freezing point

37.4 F (3 C)

#### Initial boiling point and boiling range

534.2 F (279 C)

#### Flash point

Not available.

#### Evaporation rate

Not available.

#### Flammability (solid, gas)

Not available.

#### Upper/lower flammability or explosive limits

##### Flammability limit - lower (%)

Not available.

##### Flammability limit - upper (%)

Not available.

##### Explosive limit - lower (%)

Not available.

##### Explosive limit - upper (%)

Not available.



Vapor pressure	1 mm Hg @ 146C
Vapor density	3.39
Relative density	1.84
<b>Solubility(ies)</b>	
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	< 100 cP

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Reacts violently with strong alkaline substances. This product may react with reducing agents. Do not mix with other chemicals. Contact with incompatible materials.
<b>Incompatible materials</b>	This product may react with reducing agents. Incompatible with bases.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

### Information on toxicological effects

#### Acute toxicity

Components	Species	Test Results
Sulfuric acid 96-98.5% (CAS 7664-93-9)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	347 mg/l, 1 Hours
<i>Oral</i>		
LD50	Rat	2140 mg/kg

Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	The International Agency for Research on Cancer (IARC) has classified strong inorganic acid mists containing sulfuric acid as a known human carcinogen, (IARC category 1). This classification applies only to mists containing sulfuric acid and not to sulfuric acid or sulfuric acid solutions.

Sulfuric acid 96-98.5% (CAS 7664-93-9)

1 Carcinogenic to humans.

**NTP Report on Carcinogens**

Sulfuric acid 96-98.5% (CAS 7664-93-9)

Known To Be Human Carcinogen.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**12. Ecological information**

**Ecotoxicity** Harmful to aquatic life.

Components	Species	Test Results
Sulfuric acid 96-98.5% (CAS 7664-93-9)		
<b>Aquatic</b>		
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> ) 42 mg/l, 96 hours

Estimates for product may be based on additional component data not shown.

<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**14. Transport information****DOT**

<b>UN number</b>	UN1830
<b>UN proper shipping name</b>	Sulfuric acid with more than 51 percent acid
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	8
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	A3, A7, B3, B83, B84, IB2, N34, T8, TP2, TP12
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**IATA**

**UN number** UN1830  
**UN proper shipping name** Sulphuric acid with more than 51% acid  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** II  
**Environmental hazards** No.  
**ERG Code** 8L  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

**UN number** UN1830  
**UN proper shipping name** SULPHURIC ACID with more than 51% acid  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** II  
**Environmental hazards**  
**Marine pollutant** No.  
**EmS** F-A, S-B  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

**15. Regulatory information**

**US federal regulations** This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
 All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Sulfuric acid 96-98.5% (CAS 7664-93-9) LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Sulfuric acid 96-98.5%	7664-93-9	1000	1000 lbs		

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Sulfuric acid 96-98.5%	7664-93-9	60-100

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Sulfuric acid 96-98.5% (CAS 7664-93-9)

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Sulfuric acid 96-98.5% (CAS 7664-93-9) 6552

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Sulfuric acid 96-98.5% (CAS 7664-93-9) 20 %WV

**DEA Exempt Chemical Mixtures Code Number**

Sulfuric acid 96-98.5% (CAS 7664-93-9) 6552

**US state regulations** WARNING: This product contains a chemical known to the State of California to cause cancer.

**US. Massachusetts RTK - Substance List**

Sulfuric acid 96-98.5% (CAS 7664-93-9)

**US. New Jersey Worker and Community Right-to-Know Act**

Sulfuric acid 96-98.5% (CAS 7664-93-9)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Sulfuric acid 96-98.5% (CAS 7664-93-9)

**US. Rhode Island RTK**

Sulfuric acid 96-98.5% (CAS 7664-93-9)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Sulfuric acid 96-98.5% (CAS 7664-93-9)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
apan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New ealand	New ealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 30- uly-2014

**Revision date** 10-December-2014

**Version #** 02

**HMIS® ratings** Health: 3  
Flammability: 0  
Physical hazard: 0

**Disclaimer** The information in the sheet was written based on the best knowledge and experience currently available.



# SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Clorox Commercial Solutions® Clorox® Disinfecting Wipes - Fresh Scent

### Other means of identification

**EPA Registration Number** 67619-9

### Recommended use of the chemical and restrictions on use

**Recommended use** Moistened disinfecting wipes

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Clorox Professional Products Company  
1221 Broadway  
Oakland, CA 94612

Phone: 1-510-271-7000

### Emergency telephone number

**Emergency Phone Numbers** For Medical Emergencies call: 1-800-446-1014  
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

**2. HAZARDS IDENTIFICATION****Classification**

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

**GHS Label elements, including precautionary statements****Emergency Overview**

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

<b>Appearance</b> Clear, colorless liquid absorbed into white, non-woven wipes	<b>Physical State</b> Thin liquid absorbed into non-woven wipes	<b>Odor</b> Fruity, apple, floral
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**Precautionary Statements - Prevention**

None

**Precautionary Statements - Response**

None

**Precautionary Statements - Storage**

None

**Precautionary Statements - Disposal**

None

**Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**

21.5% of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

No information available

**Interactions with Other Chemicals**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	Weight %	Trade Secret
Ethylene glycol monoethyl ether	112-25-4	1 - 5	
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	85409-23-0	0.1 - 0.2	
n-Alkyl (5% C12, 60% C14, 30% C16, 5% C18) dimethyl benzyl ammonium chloride	53516-76-0	0.1 - 0.2	

The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

### First aid measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. If present, remove contact lenses after the first 5 minutes of rinsing, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
<b>Skin Contact</b>	Rinse skin with plenty of water. If irritation persists, call a doctor.
<b>Inhalation</b>	Move to fresh air. If breathing problems develop, call a doctor.
<b>Ingestion</b>	Drink a glassful of water. Call a doctor or poison control center.

### Most important symptoms and effects, both acute and delayed

<b>Most Important Symptoms and Effects</b>	Liquid may cause eye irritation.
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### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

### Specific Hazards Arising from the Chemical

#### **Hazardous Combustion Products**

Oxides of carbon.

#### **Explosion Data**

**Sensitivity to Mechanical Impact** No.

**Sensitivity to Static Discharge** No.

#### **Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal Precautions</b>	Avoid contact with eyes.
<b>Other Information</b>	Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

<b>Environmental Precautions</b>	See Section 12 for additional ecological information.
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### Methods and material for containment and cleaning up

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Cleaning Up</b>	Containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.
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### Conditions for safe storage, including any incompatibilities

<b>Storage</b>	Keep containers tightly closed in a dry, cool, and well-ventilated place.
<b>Incompatible Products</b>	None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol monoethyl ether 112-25-4	None	None	None
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride 85409-23-0	None	None	None
n-Alkyl (5% C12, 60% C14, 30% C16, 5% C18) dimethyl benzyl ammonium chloride 53516-76-0	None	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.



**Appropriate engineering controls**

<b>Engineering Measures</b>	Showers Eyewash stations Ventilation systems
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**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	No special protective equipment required.
<b>Skin and Body Protection</b>	No special protective equipment required.
<b>Respiratory Protection</b>	No protective equipment is needed under normal use conditions. If irritation is experienced, ventilation and evacuation may be required.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical and Chemical Properties**

<b>Physical State</b>	Thin liquid absorbed into non-woven wipes		
<b>Appearance</b>	Clear liquid absorbed into non-woven wipes	<b>Odor</b>	Fruity, apple, floral
<b>Color</b>	Colorless liquid - white non-woven wipes	<b>Odor Threshold</b>	No information available

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks/ Method</u></b>
<b>pH</b>	6 - 9 (liquid)	None known
<b>Melting/freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash Point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limits in Air</b>		
<b>Upper flammability limit</b>	No data available	None known
<b>Lower flammability limit</b>	No data available	None known
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Specific Gravity</b>	1.0 (liquid)	None known
<b>Water Solubility</b>	Complete (liquid)	None known
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Explosive Properties</b>	Not explosive	
<b>Oxidizing Properties</b>	No data available	

**Other Information**

<b>Softening Point</b>	No data available
<b>VOC Content (%)</b>	No data available
<b>Particle Size</b>	No data available
<b>Particle Size Distribution</b>	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

None known based on information supplied.

### Incompatible materials

None known.

### Hazardous Decomposition Products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Exposure to vapor or mist may irritate respiratory tract.
<b>Eye Contact</b>	Liquid may cause irritation.
<b>Skin Contact</b>	Liquid may cause slight irritation.
<b>Ingestion</b>	Ingestion of liquid may cause slight irritation to mucous membranes and gastrointestinal tract.

#### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylene glycol monoethyl ether 112-25-4	739 mg/kg (Rat)	721 mg/kg (Rabbit)	0.5 mg/L (Rat, 4 h)

### Information on toxicological effects

**Symptoms** Liquid may cause redness and tearing of eyes.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	No information available.
<b>Carcinogenicity</b>	None of the ingredients in this product are on the IARC, OSHA, or NTP carcinogen lists.
<b>Reproductive Toxicity</b>	No information available.

<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Chronic Toxicity</b>	No known effect based on information supplied.
<b>Target Organ Effects</b>	Respiratory system, eyes, skin, gastrointestinal tract (GI).
<b>Aspiration Hazard</b>	No information available.

**Numerical measures of toxicity - Product Information**

**ATEmix (oral)**  
40.1 g/kg

**ATEmix (dermal)**  
59.8 g/kg

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

No information available.

**Persistence and Degradability**

No information available.

**Bioaccumulation**

No information available.

**Other adverse effects**

No information available.

**13. DISPOSAL CONSIDERATIONS****Disposal methods**

Dispose of in accordance with all applicable federal, state, and local regulations.

**Contaminated Packaging**

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

**14. TRANSPORT INFORMATION**

<b><u>DOT</u></b>	Not regulated.
<b><u>TDG</u></b>	Not regulated.
<b><u>ICAO</u></b>	Not regulated.
<b><u>IATA</u></b>	Not regulated
<b><u>IMDG/IMO</u></b>	Not regulated

**15. REGULATORY INFORMATION**

**Chemical Inventories**

**TSCA** All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.  
**DSL/NDSL** All components are on the DSL or NDSL.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**U.S. Federal Regulations**

**SARA 313**  
 Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical which is sub ect to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS No.	Weight %	Threshold Value (%)
Ethylene glycol monohexyl ether	112-25-4	1 - 5	1.0

**SARA 311/312 Hazard Categories**

**Acute Health Hazard** No  
**Chronic Health Hazard** No  
**Fire Hazard** No  
**Sudden Release of Pressure Hazard** No  
**Reactive Hazard** No

**CWA (Clean Water Act)**

This product does not contain any substances that are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This product does not contain any substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is sub ect to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Wear gloves for prolonged or frequent use.

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ethylene glycol monoethyl ether 112-25-4					
Isopropyl alcohol 67-63-0					

**International Regulations****Canada****WHMIS Hazard Class**

D2B Toxic materials

**16. OTHER INFORMATION**

**NFPA** Health Hazard 1 Flammability 0 Instability 0 Physical and Chemical Hazards -

**HMIS** Health Hazard 1 Flammability 0 Physical Hazard 0 Personal Protection A

**Prepared By** Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

**Preparation/Revision Date** January 5, 2015

**Revision Note** New

**Reference** 1102043/174189.002

**General Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

# SAFETY DATA SHEET



Date of issue/Date of revision 1 May 2016

Version 5

## Section 1. Identification

**Product name** : LN-901 HEAVY DUTY AHE90112TN0  
**Product code** : 00407692  
**Other means of identification** : Not available.  
**Product type** : Liquid.

### Relevant identified uses of the substance or mixture and uses advised against

**Product use** : Industrial applications.  
**Use of the substance/mixture** : Adhesive.  
**Uses advised against** : Not applicable.

**Manufacturer** : PPG Industries, Inc.  
One PPG Place  
Pittsburgh, PA 15272  
**Emergency telephone number** : (412) 434-4515 (U.S.)  
(514) 645-1320 (Canada)  
01-800-00-21-400 (Mexico)

**Technical Phone Number** : 1-800-441-9695 (8:00 am to 5:00 pm EST)

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** :  FLAMMABLE LIQUIDS - Category 2  
SKIN IRRITATION - Category 2  
GERM CELL MUTAGENICITY - Category 1  
CARCINOGENICITY - Category 1A  
TOXIC TO REPRODUCTION (Fertility) - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 27%

### GHS label elements

**Hazard pictograms** :



**Product code** 00407692**Date of issue** 1 May 2016**Version** 5**Product name** LN-901 HEAVY DUTY AHE90112TN0

## Section 2. Hazards identification

**Signal word** : Danger

**Hazard statements** : Highly flammable liquid and vapor.  
 Causes skin irritation.  
 May cause genetic defects.  
 May cause cancer.  
 Suspected of damaging fertility.  
 May cause damage to organs through prolonged or repeated exposure.

### Precautionary statements

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Do not breathe vapor. Wash hands thoroughly after handling.

**Response** : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention.

**Storage** : Store locked up. Store in a well-ventilated place. Keep cool.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** : Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

**Hazards not otherwise classified** : Prolonged or repeated contact may dry skin and cause irritation.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture**Product name** : LN-901 HEAVY DUTY AHE90112TN0

<b>Ingredient name</b>	<b>%</b>	<b>CAS number</b>
Distillates (petroleum), light distillate hydrotreating process, low-boiling cyclohexane	≥10 - ≤20	68410-97-9
n-hexane	≥10 - ≤18	110-82-7
crystalline silica, respirable powder (>10 microns)	≤1.8	110-54-3
rosin	≤1.0	14808-60-7
titanium dioxide	<1.0	8050-09-7
tris(nonylphenyl) phosphite	≤1.0	13463-67-7
	<1.0	26523-78-4

**Product code** 00407692**Date of issue** 1 May 2016**Version** 5**Product name** LN-901 HEAVY DUTY AHE90112TN0

## Section 3. Composition/information on ingredients

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

### Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations



Product code 00407692

Date of issue 1 May 2016

Version 5

Product name LN-901 HEAVY DUTY AHE90112TN0

## Section 4. First aid measures

**Ingestion** : Adverse symptoms may include the following:  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Product code 00407692

Date of issue 1 May 2016

Version 5

Product name LN-901 HEAVY DUTY AHE90112TN0

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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## Section 7. Handling and storage

- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), light distillate hydrotreating process, low-boiling cyclohexane	<b>OSHA PEL (United States).</b> TWA: 500 ppm <b>ACGIH TLV (United States, 3/2015).</b> TWA: 100 ppm 8 hours.
n-hexane	<b>OSHA PEL (United States, 2/2013).</b> TWA: 1050 mg/m <sup>3</sup> 8 hours. TWA: 300 ppm 8 hours. <b>ACGIH TLV (United States, 3/2015).</b> <b>Absorbed through skin.</b> TWA: 50 ppm 8 hours.
crystalline silica, respirable powder (>10 microns)	<b>OSHA PEL (United States, 2/2013).</b> TWA: 1800 mg/m <sup>3</sup> 8 hours. TWA: 500 ppm 8 hours. <b>ACGIH TLV (United States, 3/2015).</b> TWA: 0.025 mg/m <sup>3</sup> 8 hours. Form: Respirable <b>OSHA PEL Z3 (United States, 2/2013).</b> TWA: 10 MG/M3 / (%SiO <sub>2</sub> +2) 8 hours. Form: Respirable TWA: 250 MPPCF / (%SiO <sub>2</sub> +5) 8 hours. Form: Respirable
rosin	<b>OSHA PEL Z3 (United States).</b> TWA: 30 mg/m <sup>3</sup> Form: Total dust None.
titanium dioxide	<b>OSHA PEL (United States, 2/2013).</b> TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust

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## Section 8. Exposure controls/personal protection

tris(nonylphenyl) phosphite

ACGIH TLV (United States, 3/2015).

TWA: 10 mg/m<sup>3</sup> 8 hours.

None.

### Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

### Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Chemical splash goggles.

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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## Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: -17°C (1.4°F)
- Material supports combustion.** : Yes.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1.28%  
Upper: 8.29%
- Evaporation rate** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.18
- Density ( lbs / gal )** : 9.85
- Solubility** : Insoluble in the following materials: cold water.
- Partition coefficient: n-octanol/water** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >0.21 cm<sup>2</sup>/s (>21 cSt)
- Volatility** : 53% (v/v), 32.432% (w/w)
- % Solid. (w/w)** : 67.568

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## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
- Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
- Hazardous decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), light distillate hydrotreating process, low-boiling cyclohexane n-hexane  rosin titanium dioxide tris(nonylphenyl) phosphite	LD50 Oral	Rat	5.17 g/kg	-
	LD50 Oral	Rat	6240 mg/kg	-
	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LD50 Oral	Rat	15840 mg/kg	-
	LD50 Oral	Rat	7600 mg/kg	-
	LD50 Oral	Rat	>11 g/kg	-
	LD50 Dermal	Rabbit	>2 g/kg	-
LD50 Oral	Rat	>2 g/kg	-	

**Conclusion/Summary** : There are no data available on the mixture itself.

#### Irritation/Corrosion

##### Conclusion/Summary

**Skin** : There are no data available on the mixture itself.

**Eyes** : There are no data available on the mixture itself.

**Respiratory** : There are no data available on the mixture itself.

#### Sensitization

##### Conclusion/Summary

**Skin** : There are no data available on the mixture itself.

**Respiratory** : There are no data available on the mixture itself.

#### Mutagenicity

**Conclusion/Summary** : There are no data available on the mixture itself.

#### Carcinogenicity

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## Section 11. Toxicological information

**Conclusion/Summary** : There are no data available on the mixture itself.

### Classification

Product/ingredient name	OSHA	IARC	NTP
crystalline silica, respirable powder (>10 microns)	-	1	Known to be a human carcinogen.
titanium dioxide	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

### Reproductive toxicity

**Conclusion/Summary** : There are no data available on the mixture itself.

### Teratogenicity

**Conclusion/Summary** : There are no data available on the mixture itself.

### Specific target organ toxicity (single exposure)

Name	Category
cyclohexane	Category 3
n-hexane	Category 3

### Specific target organ toxicity (repeated exposure)

Name	Category
cyclohexane	Category 2
n-hexane	Category 2

**Target organs** : Contains material which causes damage to the following organs: brain, central nervous system (CNS).  
Contains material which may cause damage to the following organs: lungs, the nervous system, peripheral nervous system, cardiovascular system, upper respiratory tract, skin, eye, lens or cornea, stomach.

### Aspiration hazard

Name	Result
Distillates (petroleum), light distillate hydrotreating process, low-boiling	ASPIRATION HAZARD - Category 1
cyclohexane	ASPIRATION HAZARD - Category 1
n-hexane	ASPIRATION HAZARD - Category 1

### Information on the likely routes of exposure

#### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.**Inhalation** : No known significant effects or critical hazards.**Skin contact** : Causes skin irritation. Defatting to the skin.**Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

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## Section 11. Toxicological information

**Eye contact** : Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness

**Inhalation** : Adverse symptoms may include the following:  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

**Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness  
 dryness  
 cracking  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

**Ingestion** : Adverse symptoms may include the following:  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

**Conclusion/Summary** : There are no data available on the mixture itself. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

### Short term exposure

**Potential immediate effects** : There are no data available on the mixture itself.

**Potential delayed effects** : There are no data available on the mixture itself.

### Long term exposure

**Potential immediate effects** : There are no data available on the mixture itself.

**Potential delayed effects** : There are no data available on the mixture itself.

### Potential chronic health effects

**General** : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : May cause genetic defects.



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## Section 11. Toxicological information

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : Suspected of damaging fertility.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
cyclohexane	3.44	83.18	low
n-hexane	3.9	-	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

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## 14. Transport information

	DOT	IMDG	IATA
UN number	UN1133	UN1133	UN1133
UN proper shipping name	ADHESIVES	ADHESIVES	ADHESIVES
Transport hazard class (es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(cyclohexane, n-hexane)	Not applicable.
Product RQ (lbs)	7650.8	Not applicable.	Not applicable.
RQ substances	(cyclohexane)	Not applicable.	Not applicable.

### Additional information

- DOT** : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

### United States

**United States inventory (TSCA 8b)** : All components are listed or exempted.

#### SARA 302/304

**SARA 304 RQ** : Not applicable.

#### Composition/information on ingredients

No products were found.

#### SARA 311/312

**Classification** : Fire hazard  
 Immediate (acute) health hazard  
 Delayed (chronic) health hazard

#### Composition/information on ingredients

**Product code** 00407692**Date of issue** 1 May 2016**Version** 5**Product name** LN-901 HEAVY DUTY AHE90112TN0**Section 15. Regulatory information**

<b>Name</b>	<b>Fire hazard</b>	<b>Sudden release of pressure</b>	<b>Reactive</b>	<b>Immediate (acute) health hazard</b>	<b>Delayed (chronic) health hazard</b>
Distillates (petroleum), light distillate hydrotreating process, low-boiling cyclohexane	No.	No.	No.	Yes.	Yes.
n-hexane	Yes.	No.	No.	Yes.	Yes.
crystalline silica, respirable powder (>10 microns)	Yes.	No.	No.	Yes.	Yes.
rosin	No.	No.	No.	No.	Yes.
titanium dioxide	No.	No.	No.	No.	No.
tris(nonylphenyl) phosphite	No.	No.	No.	Yes.	No.

**SARA 313**

<b>Supplier notification</b>	<b>Chemical name</b>	<b>CAS number</b>	<b>Concentration</b>
	: cyclohexane	110-82-7	10 - 30
	: n-hexane	110-54-3	0.5 - 1.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.**

**California Prop. 65**

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

**Section 16. Other information****Hazardous Material Information System (U.S.A.)**

**Health** : 3 \* **Flammability** : 3 **Physical hazards** : 0

(\* ) - Chronic effects

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

**The customer is responsible for determining the PPE code for this material.**

**National Fire Protection Association (U.S.A.)**

**Health** : 3 **Flammability** : 3 **Instability** : 0

**Date of previous issue** : 10/18/2015

**Organization that prepared the MSDS** : EHS

**Key to abbreviations**

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

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## Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

✔ Indicates information that has changed from previously issued version.

### Disclaimer

*The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.*

# Copper Fittings and Components (Cast, Wrought (Wrot) and Forged)

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 06/01/2015

Revision date: 06/01/2015

Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Article  
Product name : Copper Fittings and Components (Cast, Wrought (Wrot) and Forged)  
Product code : Not available

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Copper fittings and components used in plumbing, piping and other applications

#### 1.3. Details of the supplier of the safety data sheet

NIBCO INC.  
1516 Middlebury St.  
Elkhart, IN 46516 - USA  
General: 574-295-3000 / 800-642-5463  
Technical Services: Voice 888-446-4226 / Fax 888-336-4226  
[MSDSCoordinator@NIBCO.com](mailto:MSDSCoordinator@NIBCO.com) - <http://www.nibco.com>

#### 1.4. Emergency telephone number

Emergency number : ChemTel: 800-255-3924; International: +01-813-248-0585

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

This product is classified as an "article" under the OSHA HAZCOM 2012, Subpart Z - Toxic & Hazardous Substances, and as such is exempt from the requirement for classification.

#### 2.2. Label elements

##### GHS-US labelling

This product is classified as an "article" under the OSHA HAZCOM 2012, Subpart Z - Toxic & Hazardous Substances, and as such is exempt from the requirement for labeling.

#### 2.3. Other hazards

No additional information available.

#### 2.4. Unknown acute toxicity (GHS-US)

Not applicable.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable.

#### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
None required.			

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation : Not applicable for product in finished form.  
First-aid measures after skin contact : Not applicable for product in finished form. If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.  
First-aid measures after eye contact : Not applicable for product in finished form. If irritation occurs, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.  
First-aid measures after ingestion : Not applicable for product in finished form.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Not a normal route of exposure.  
Symptoms/injuries after skin contact : No known adverse effects.  
Symptoms/injuries after eye contact : No known adverse effects.  
Symptoms/injuries after ingestion : Not a normal route of exposure.

# Copper Fittings and Components (Cast, Wrought (Wrot) and Forged)

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

### 4.3. Indication of any immediate medical attention and special treatment needed

Not applicable.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Treat for surrounding material.

Unsuitable extinguishing media : None known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

### 5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Not applicable.

### 6.2. Methods and material for containment and cleaning up

For containment : Not applicable for product in finished form.

Methods for cleaning up : Pick up large pieces, then place in a suitable container.

### 6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : No special precautions required.

Hygiene measures : Wash hands before eating, drinking, or smoking.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special requirements.

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available.

### 8.2. Exposure controls

Appropriate engineering controls : Ventilation is not normally required.

Hand protection : None necessary under normal conditions of use.

Eye protection : None necessary under normal conditions of use.

Skin and body protection : None necessary under normal conditions of use.

Respiratory protection : Not normally needed.

Environmental exposure controls : Handle in accordance with good industrial hygiene and safety practice.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Various metal articles

Colour : Copper

Odour : Odourless

Odour threshold : No data available

pH : No data available

Melting point : 1981 °F

Freezing point : No data available

# Copper Fittings and Components (Cast, Wrought (Wrot) and Forged)

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not flammable
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: 8.94
Relative vapour density at 20 °C	: No data available
Solubility	: Insoluble
Partition coefficient: n-octanol/water	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

### 9.2. Other information

No additional information available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2. Chemical stability

Stable under normal storage conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not applicable.
Skin corrosion/irritation	: Not applicable.
Serious eye damage/irritation	: Not applicable.
Respiratory or skin sensitisation	: Not applicable.
Germ cell mutagenicity	: Not applicable.
Carcinogenicity	: Not applicable.
Reproductive toxicity	: Not applicable.
Specific target organ toxicity (single exposure)	: Not applicable.
Specific target organ toxicity (repeated exposure)	: Not applicable.
Aspiration hazard	: Not applicable.
Symptoms/injuries after inhalation	: Not a normal route of exposure.
Symptoms/injuries after skin contact	: No known adverse effects.
Symptoms/injuries after eye contact	: No known adverse effects.
Symptoms/injuries after ingestion	: Not a normal route of exposure.

# Copper Fittings and Components (Cast, Wrought (Wrot) and Forged)

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

#### 12.2. Persistence and degradability

##### Copper Fittings and Components (Cast, Wrought (Wrot) and Forged)

Persistence and degradability	Not established.
-------------------------------	------------------

#### 12.3. Bioaccumulative potential

##### Copper Fittings and Components (Cast, Wrought (Wrot) and Forged)

Bioaccumulative potential	Not established.
---------------------------	------------------

#### 12.4. Mobility in soil

No additional information available.

#### 12.5. Other adverse effects

No additional information available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

#### Additional information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are listed, or exempt from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

#### 15.2. US State regulations

##### Copper Fittings and Components (Cast, Wrought (Wrot) and Forged)

State or local regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
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### SECTION 16: Other information

Date of issue : 06/01/2015

Other information : None.

#### Notice to Reader:

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Always Moving Forward.®

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 St. Louis, MO 63166-6800  
 888-237-7611 | 618-337-6000  
 cerroflow.com

## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION

Copper Tubing (all sizes and wall thicknesses)

Cerro Flow Products LLC

PO Box 66800, St Louis, MO 63166-6800 Telephone number 618-337-6000

Recommended use: Plumbing and industrial copper tubing. Restricted use: None known

### SECTION 2. HAZARD IDENTIFICATION

#### CAUTION

Inhalation Hazard Fumes are created by heating copper past its melting point. Proper soldering or sweating copper tubes will not produce fumes. Brazing of copper tube may produce fumes. Consult the Copper Development Association Inc. (CDA) "The Copper Tube Handbook" for proper joining methods, and recommended solders, fluxes and filler metals (see CDA link on [www.cerroflow.com](http://www.cerroflow.com) to obtain handbook).

Ingestion Hazard Ingestion of metallic copper is not a primary route of exposure. Metallic copper may be moderately irritating to the gastrointestinal tract.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>MATERIAL OR COMPONENT</u>	<u>C.A.S. No.</u>	<u>WT. %</u>
Copper	7440-50-8	99.9+

### SECTION 4. FIRST AID MEASURES

Inhalation: Remove from exposure; place individual under care of a physician.

Ingestion: Induce vomiting in conscious individual and call a physician.

Skin or Eyes; Flush with plenty of water. If symptoms develop, consult a physician.

### SECTION 5. FIRE FIGHTING MEASURES

<u>FIRE AND EXPLOSION HAZARDS</u>	<u>FIRE EXTINGUISHING AGENTS RECOMMENDED</u>	<u>FIRE EXTINGUISHING AGENTS TO AVOID</u>
Not Applicable	No specific agents recommended	No specific agents recommended

#### SPECIAL FIRE FIGHTING PRECAUTIONS

Copper tube will not burn or give off toxic gases in normal fires Use fire fighting methods compatible with surrounding materials.

### SECTION 6. RELEASE MEASURES

#### SPILLS OR LEAKS

Proper installation of copper tubing will not produce dust. Consult Copper Development Association, Inc (CDA) "The Copper Tube Handbook" for proper joining methods (See CDA link on <http://www.cerroflow.com> to obtain handbook) Vacuuming is preferred for dust. Do not use compressed air for cleaning. Recycle unused or scrap copper tube at a local scrap metal dealer.

**SECTION 7. HANDLING AND STORAGE****NORMAL HANDLING**

Avoid conditions which create fumes or fine dust. Use of approved respirators is required where adequate ventilation cannot be provided. Do not use copper tubing where incompatible materials may be present, (see section X).

**STORAGE**

Avoid storage near incompatible materials, see Section 10.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Permissible Air Conc. (mg/m <sup>3</sup> )			
	OSHA		ACGIH
Dust	1.0		1.0
Fume	0.1		0.2

**ENGINEERING CONTROLS**

Local exhaust is recommended for dust and/or fume generating operations where airborne exposure may exceed permissible air concentrations.

**PERSONAL HYGIENE**

Avoid inhalation or ingestion. Practice good housekeeping and personal hygiene procedures. Showering is recommended if significant dust exposure occurs.

**SPECIAL: PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS**

No special precautions.

**LABEL SIGNAL WORD:**

NOT APPLICABLE

**RESPIRATORY PROTECTION**

Where airborne exposures may exceed OSHA/ACGIH permissible air concentrations, the minimum respiratory protection recommended is a negative pressure air purifying respirator with cartridges that are NIOSH/MSHA approved against dust, fumes, and mists having a TWA not less than 0.05 mg/m<sup>3</sup>

**EYES AND FACE**

Safety glasses recommended when dust or shavings may exist.

**OTHER CLOTHING AND EQUIPMENT**

Protective clothing is recommended to prevent burns during installation of tube or splattering of fluxes, solder or filler metals.

**SECTION 9. PHYSICAL/CHEMICAL PROPERTIES****MATERIAL IS (AT NORMAL CONDITIONS)**

Solid

**APPEARANCE AND ODOR**

Yellow-red metal, various shapes and sizes.

**MELTING POINT (DEGREES C)**

1083

**BOILING POINT (DEGREES C)**

2595

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1)**

8.96

**VAPOR DENSITY (AIR = 1)**

Not applicable

**SOLUBILITY IN WATER (% BY WT.)**

Insoluble

**pH**

Not Applicable

**VAPOR PRESSURE (mm Hg)**

Not Applicable

**EVAPORATION RATE**

Not Applicable

**SECTION 10. STABILITY AND REACTIVITY****STABILITY**

Stable

**CONDITIONS TO AVOID**

Not Applicable

**INCOMPATIBILITY (MATERIALS TO AVOID)**

Reacts violently with acetylene, hydrogen peroxides, gaseous chlorine, ammonia nitrate, bromates, chlorates, hydrogen sulfide, lead azide, and hydrazine.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Copper does not decompose

**HAZARDOUS POLYMERIZATION**

Will not occur

**CONDITIONS TO AVOID**

Not Applicable



WHMIS (Canada): CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

**SECTION 16. OTHER INFORMATION**

<u>ISSUED DATE</u>	<u>SUPERSEDES</u>
October 1, 2016	August 15, 2013

**PERMISSIBLE CONCENTRATION REFERENCE**  
 OSHA regulations for airborne contaminants 29 CFR 1910.1000 and 1018; ACGIH Threshold Limit Values for Chemical Substances

**HAZARD INFORMATION REFERENCES**  
*Documentation Up to date, curated data provided by Mathematica's ElementData function from Wolfram Research, Inc*

**GENERAL**  
*Copper Development Association, The Copper Tube Handbook, 2016*

**Notes**

No additional information.

THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN ARE TAKEN FROM SOURCES BELIEVED TO BE ACCURATE AS OF THE DATE HEREOF; HOWEVER, CERRO FLOW PRODUCTS LLC MAKES NO WARRANTY WITH RESPECT TO THE ACCURACY OF THE INFORMATION OR THE SUITABILITY OF THE RECOMMENDATIONS, AND ASSUMES NO LIABILITY TO ANY USER THEREOF.

SDS# 6-330  
Date: April 2016

Total Pages: 3

# Cork Insulation Tape

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 4217-14 Cork Insulation Tape  
**Catalog Number:** 6-330  
**Manufactured for:** DiversiTech Corporation  
6650 Sugarloaf Parkway  
Duluth, GA 30097

**Information Phone No.:** 1+678-542-3600  
**EMERGENCY Phone No.:** 1+800.434.9300 Chem-Tel (Chemical Emergencies Only)

## SECTION 2. HAZARDOUS IDENTIFICATION

### EMERGENCY OVERVIEW:

Health	1
Flamability	1
Reactivity	0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

### POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY:

**EYE:** No irritation hazard in normal industrial use.

**SKIN:** No irritation hazard in normal industrial use.

**INHALATION:** No irritation hazard in normal industrial use. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract. Prolonged exposure may lead to inflammation and ulceration.

**INGESTION:** Ingestion is not an anticipated route of exposure.

### LONG-TERM (CHRONIC) HEALTH EFFECTS

**TARGET ORGAN(S):** No organs known to be damaged from exposure to this product.

### REGULATED CARCINOGEN STATUS:

Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH, or OSHA listed carcinogens.

**EXISTING HEALTH CONDITIONS AFFECTED BY EXPOSURE:** No medical conditions affected by exposure.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Based on data available to Edge Adhesives, none of the components in this product are considered hazardous according to OSHA Hazard Communication Standard (29 CFR 1910. 1200). The composition of this compound is proprietary information. In the event of a medical emergency, detailed information will be provided to a nurse or physician.

## SECTION 4. FIRST AID MEASURES

**IF IN EYES:** This product is an inert solid. Remove the substance from the eye(s), and immediately flush eye(s) with plenty of water while retracting eyelids often. If inflammation or blurred vision develops, seek medical attention and provide the medical care professional with this SDS.

**IF ON SKIN:** Wash with soap and water.

**IF VAPORS INHALED:** Not an anticipated route of exposure. This product is an inert solid. If dusts are produced by cutting or sanding this product, please consider improving work site ventilation.

**IF SWALLOWED:** No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this SDS.

# Cork Insulation Tape

## SECTION 5. FIREFIGHTING MEASURES

FLASH POINT:	Not applicable
AUTOIGNITION TEMPERATURE:	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
UPPER EXPLOSIVE LIMIT (% in air):	Not established
EXTINGUISHING MEDIA:	Use water spray, foam, dry chemical or carbon dioxide.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Material will burn in a fire.
SPECIAL FIRE FIGHTING INSTRUCTIONS:	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
HAZARDOUS COMBUSTION PRODUCTS:	Carbon dioxide, Carbon monoxide, Bromine containing gases

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**SPECIAL PROTECTION:** No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this SDS.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

## SECTION 7. HANDLING AND STORAGE

**Handling:** No special handling instructions due to toxicity.

**Storage:** Store in a cool, dry place.

Consult the Technical Data Sheet for specific storage instructions.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**EYE PROTECTION:** Wear goggles when handling this product.

**SKIN PROTECTION:** Protect skin accordingly if working in environments with elevated temperatures.

**GLOVES:** Not normally required. Use nitrile gloves if conditions warrant.

**RESPIRATORY PROTECTION:** Not normally required.

**VENTILATION:** Use local exhaust ventilation to minimize exposure.

**HYGIENIC PRACTICES:** Wash hands before eating, smoking, or using the restroom.

**EXPOSURE LIMITS:** None applicable for this product when used for normal industrial applications. Avoid excessive and unnecessary exposure whenever possible. If deemed useful and essential for treatment, specific exposure limits of raw materials used during the manufacturing process will be provided to a nurse or physician.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Solid
COLOR:	Black
ODOR:	Neutral
ODOR THRESHOLD:	Not established
SPECIFIC GRAVITY:	.75-.85
SOLIDS (% by weight):	100%
pH:	Not established
BOILING POINT (deg. C):	Not established
FREEZING/MELTING POINT (deg. C):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
EVAPORATION RATE:	Not established
OCTANOL/WATER COEFFICIENT:	Not established

## SECTION 10. STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide, Bromine containing gases

# Cork Insulation Tape

## SECTION 11. TOXICOLOGICAL INFORMATION

**CHEMICAL NAME** LD50/LC50  
Calcium carbonate Oral LD50 Rat = 6450 mg/kg

**TOXICOLOGY SUMMARY:** No additional health information available.

## SECTION 12. ECOLOGICAL INFORMATION

**OVERVIEW:** No ecological information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Dispose of in accordance with federal, state, and local law. Consult your state, local or provincial authorities and your local waste vendor for more restrictive requirements.

## SECTION 14. TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information.

## SECTION 15. REGULATORY INFORMATION

### INVENTORY STATUS:

**U.S. EPA TSCA:** This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

If you need more information about the inventory status of this product, call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others).

### FEDERAL REPORTING:

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 72. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
None Applicable		
None Applicable		
None Applicable		

**CANADIAN WHMIS STATUS:** To the best of our knowledge, this material is classified as a NON-CONTROLLED PRODUCT.

## SECTION 16. OTHER INFORMATION

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to Edge Adhesives from its suppliers, and because Edge Adhesives has no control over the conditions of handling and use, Edge Adhesives makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and Edge Adhesives assumes no responsibility for use or reliance thereon. It is the responsibility of the user of Edge Adhesives products to comply with all applicable federal, state and local laws and regulations.

## 1. Identification

<b>Product identifier</b>	<b>Oatey CPVC Flowguard Gold UVI One-Step Yellow Cement</b>
<b>Other means of identification</b>	
<b>Product code</b>	1203E
<b>Synonyms</b>	Part Numbers: 31910(TV), 31911(TV), 31912, 31913, 31914, 31656, 31657, 32200, 32201, 32202, 32203, 31660, 31661, 31662, 31663, 31917, 31918, 31919
<b>Recommended use</b>	Joining CPVC Pipes
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company Name</b>	
<b>Address</b>	
<b>Telephone</b>	
<b>E-mail</b>	
<b>Transport Emergency</b>	
<b>Emergency First Aid</b>	
<b>Contact person</b>	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.



<b>Response</b>	If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.
<b>Supplemental information</b>	Not applicable.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	30-60
Methyl ethyl ketone	78-93-3	10-30
Ethene, chloro-, homopolymer, chlorinated	68648-82-8	10-20
Acetone	67-64-1	5-15
Cyclohexanone	108-94-1	5-15
Silica, amorphous, fumed	112945-52-5	1-5

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

**Specific methods**

Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**

Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage**

**Precautions for safe handling**

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3 50 ppm
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3 200 ppm
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3 200 ppm

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	0.8 mg/m3

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value
		20 mppcf

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm
	TWA	20 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm
	TWA	50 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm
	TWA	200 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m3
		25 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m3
		250 ppm
	TWA	590 mg/m3
		200 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3
		300 ppm
	TWA	590 mg/m3
		200 ppm
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m3

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	

- For sampling details, please see the source document.

**Exposure guidelines****US - California OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Cyclohexanone (CAS 108-94-1)

Skin designation applies.

**US - Tennessee OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

Furan, Tetrahydro- (CAS 109-99-9)

Can be absorbed through the skin.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Face shield is recommended. Wear safety glasses with side shields (or goggles).

**Skin protection****Hand protection**

Wear appropriate chemical resistant gloves.

**Other**

Wear appropriate chemical resistant clothing.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance****Physical state**

Liquid.

**Form**

Translucent liquid.

**Color**

Yellow / Gold

**Odor**

Solvent.

**Odor threshold**

Not available.

**pH**

Not available.

**Melting point/freezing point**

Not available.

**Initial boiling point and boiling range**

151 F (66.11 C)

**Flash point**

14.0 - 23.0 F (-10.0 - -5.0 C)

**Evaporation rate**

5.5 - 8

**Flammability (solid, gas)**

Not available.

**Upper/lower flammability or explosive limits****Flammability limit - lower (%)**

1.8

**Flammability limit - upper (%)**

11.8

**Explosive limit - lower (%)**

Not available.

**Explosive limit - upper (%)**

Not available.

**Vapor pressure**

145 mm Hg @ 20 C

**Vapor density**

2.5

**Relative density**

0.94 +/- 0.02

**Solubility(ies)****Solubility (water)**

Negligible

**Partition coefficient (n-octanol/water)**

Not available.

**Auto-ignition temperature**

Not available.

<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	500 - 1500 cP
<b>Other information</b>	
<b>Bulk density</b>	7.8 lb/gal
<b>VOC (Weight %)</b>	470 g/l SQACMD 1168/M316A

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics** Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

### Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg
<i>Inhalation</i>		
LC50	Rat	50 mg/l, 8 Hours
<i>Oral</i>		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	948 mg/kg
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	1540 mg/kg

Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.

**Respiratory or skin sensitization****Respiratory sensitization** Not available.**Skin sensitization** This product is not expected to cause skin sensitization.**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.**Carcinogenicity** In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is suggestive evidence of carcinogenic potential following exposure to THF by all routes of exposure.**IARC Monographs. Overall Evaluation of Carcinogenicity**

Cyclohexanone (CAS 108-94-1) 3 Not classifiable as to carcinogenicity to humans.

Silica, amorphous, fumed (CAS 112945-52-5) 3 Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.**Specific target organ toxicity - single exposure** Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.**Specific target organ toxicity - repeated exposure** Not classified.**Aspiration hazard** May be fatal if swallowed and enters airways.**Chronic effects** Prolonged inhalation may be harmful.**12. Ecological information****Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 481 - 578 mg/l, 96 hours

Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.**Bioaccumulative potential** No data available.**Partition coefficient n-octanol / water (log Kow)**

Acetone (CAS 67-64-1) -0.24

Cyclohexanone (CAS 108-94-1) 0.81

Furan, Tetrahydro- (CAS 109-99-9) 0.46

Methyl ethyl ketone (CAS 78-93-3) 0.29

**Mobility in soil** No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.**13. Disposal considerations****Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.**Local disposal regulations** Dispose in accordance with all applicable regulations.**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). 143

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

**UN number** UN1993  
**UN proper shipping name** Flammable liquids, n.o.s. (Methyl ethyl ketone RQ = 23310 LBS, Acetone RQ = 50000 LBS)  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary risk** -  
**Label(s)** 3  
**Packing group** II  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Special provisions** IB2, T7, TP1, TP8, TP28  
**Packaging exceptions** 150  
**Packaging non bulk** 202  
**Packaging bulk** 242

### IATA

**UN number** UN1993  
**UN proper shipping name** Flammable liquid, n.o.s. (Methyl ethyl ketone, Acetone)  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary risk** -  
**Packing group** II  
**Environmental hazards** No.  
**ERG Code** 3H  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

### IMDG

**UN number** UN1993  
**UN proper shipping name** FLAMMABLE LIQUID, N.O.S. (Methyl ethyl ketone, Acetone)  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary risk** -  
**Packing group** II  
**Environmental hazards**  
**Marine pollutant** No.  
**EmS** F-E, S-E  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

## 15. Regulatory information

**US federal regulations** This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

**Hazard categories**  
 Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - Yes  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Acetone (CAS 67-64-1) 6532

Methyl ethyl ketone (CAS 78-93-3) 6714

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Acetone (CAS 67-64-1) 35 %WV

Methyl ethyl ketone (CAS 78-93-3) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

Acetone (CAS 67-64-1) 6532

Methyl ethyl ketone (CAS 78-93-3) 6714

**US state regulations****US. Massachusetts RTK - Substance List**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

Silica, amorphous, fumed (CAS 112945-52-5)

**US. New Jersey Worker and Community Right-to-Know Act**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

Silica, amorphous, fumed (CAS 112945-52-5)

**US. Rhode Island RTK**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes



Country(s) or region	Inventory name	On inventory (yes/no)*
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

<b>Issue date</b>	27-May-2015
<b>Revision date</b>	-
<b>Version #</b>	01
<b>HMIS® ratings</b>	Health: 2 Flammability: 3 Physical hazard: 0

### NFPA ratings



### Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

## 1. Identification

**Product identifier** Oatey CPVC Heavy Duty Orange Lava Cement

**Other means of identification**

**Product code** 1221E

**Synonyms** Part Numbers: 32166, 32167, 32168

**Recommended use** Joining CPVC Pipes

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Company Name**

**Address**

**Telephone**

**E-mail**

**Transport Emergency**

**Emergency First Aid**

**Contact person**

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
<b>OSHA defined hazards</b>	Not classified.	

**Label elements**



**Signal word** Danger

**Hazard statement** Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

**Precautionary statement**

**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.
<b>Supplemental information</b>	Not applicable.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	50-75
Ethene, chloro-, homopolymer, chlorinated	68648-82-8	10-25
Acetone	67-64-1	1-10
Silica, amorphous, fumed	112945-52-5	1-5

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

### Environmental precautions

## 7. Handling and storage

### Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3 200 ppm

#### US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	0.8 mg/m3 20 mppcf

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm
	TWA	50 ppm

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m <sup>3</sup> 250 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m <sup>3</sup>
	TWA	250 ppm 590 mg/m <sup>3</sup> 200 ppm
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m <sup>3</sup>

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	

- For sampling details, please see the source document.

**Exposure guidelines****US ACGIH Threshold Limit Values: Skin designation**

Furan, Tetrahydro- (CAS 109-99-9)

Can be absorbed through the skin.

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Face shield is recommended. Wear safety glasses with side shields (or goggles).

**Skin protection****Hand protection**

Wear appropriate chemical resistant gloves.

**Other**

Wear appropriate chemical resistant clothing.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance****Physical state**

Liquid.

**Form**

Translucent liquid.

**Color**

Orange

**Odor**

Solvent.

**Odor threshold**

Not available.

**pH**

Not available.

**Melting point/freezing point**

Not available.

**Initial boiling point and boiling range**

151 F (66.11 C)

**Flash point**

14.0 - 23.0 F (-10.0 - -5.0 C)

**Evaporation rate**

5.5 - 8

**Flammability (solid, gas)**

Not available.

**Upper/lower flammability or explosive limits**

<b>Flammability limit - lower (%)</b>	1.8
<b>Flammability limit - upper (%)</b>	11.8
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	145 mm Hg @ 20 C
<b>Vapor density</b>	2.5
<b>Relative density</b>	0.97 +/- 0.02
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Negligible
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	500 - 1500 cP
<b>Other information</b>	
<b>Bulk density</b>	8.1 lb/gal
<b>VOC (Weight %)</b>	< 490 g/l SQACMD 1168/M316A

**10. Stability and reactivity**

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

**11. Toxicological information****Information on likely routes of exposure**

<b>Inhalation</b>	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics**

Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Information on toxicological effects**

**Acute toxicity** May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Acetone (CAS 67-64-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg

Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is suggestive evidence of carcinogenic potential following exposure to THF by all routes of exposure.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Silica, amorphous, fumed (CAS 112945-52-5) 3 Not classifiable as to carcinogenicity to humans.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) 100 mg/l, 96 hours

Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

#### Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1)	-0.24
Furan, Tetrahydro- (CAS 109-99-9)	0.46

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquids, n.o.s. (Acetone RQ = 100806 LBS)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	IB2, T7, TP1, TP8, TP28
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

#### IATA

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquid, n.o.s. (Acetone)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	3H
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	FLAMMABLE LIQUID, N.O.S. (Acetone)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-E, S-E
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

### 15. Regulatory information

<b>US federal regulations</b>	This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
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**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Acetone (CAS 67-64-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<b>Hazard categories</b>	Immediate Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

<b>SARA 311/312 Hazardous chemical</b>	No
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**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

<b>Safe Drinking Water Act (SDWA)</b>	Not regulated.
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**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Acetone (CAS 67-64-1)	6532
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**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Acetone (CAS 67-64-1)	35 %WV
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**DEA Exempt Chemical Mixtures Code Number**

Acetone (CAS 67-64-1)	6532
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**US state regulations****US. Massachusetts RTK - Substance List**

Acetone (CAS 67-64-1)
Furan, Tetrahydro- (CAS 109-99-9)
Silica, amorphous, fumed (CAS 112945-52-5)

**US. New Jersey Worker and Community Right-to-Know Act**

Acetone (CAS 67-64-1)
Furan, Tetrahydro- (CAS 109-99-9)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Acetone (CAS 67-64-1)
Furan, Tetrahydro- (CAS 109-99-9)
Silica, amorphous, fumed (CAS 112945-52-5)

**US. Rhode Island RTK**

Acetone (CAS 67-64-1)
Furan, Tetrahydro- (CAS 109-99-9)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

<b>Issue date</b>	27-May-2015
<b>Revision date</b>	-
<b>Version #</b>	01
<b>HMIS® ratings</b>	Health: 2 Flammability: 3 Physical hazard: 0

### NFPA ratings



### Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>COMMON NAME:</b>	CPVC Pipe and Fittings	
<b>CHEMICAL NAME:</b>	Not Applicable. Formulation, see section 3.	
<b>FORMULA:</b>	Mixture	
<b>PRODUCT CAS NO.:</b>	Mixture, see section 3.	
<b>Recommended Use:</b>	Pressure Pipe and Fittings (CTS) and Chemical Waste Drainage	
<b>SUPPLIER:</b>	Charlotte Pipe and Foundry Company (Plastics Division)	
<b>ADDRESS:</b>	4210 Old Charlotte Highway	
<b>CITY, STATE, ZIP:</b>	Monroe, NC 28110	
<b>PHONE:</b>	+1-704-372-3650	<b>EMERGENCY PHONE:</b> +1-704-372-3650

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Toxic and irritating gases and fumes may be given off during burning or thermal decomposition. Avoid generating dust. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.



GHS Status

This material is hazardous in accordance with the hazard communication standard, 29 CFR 1910.1200

Classification of the substance or mixture

Skin irritation – Category 2

Eye irritation – Category 2 B  
Carcinogenicity – Category 2  
Health hazard.

GHS label pictogram  
Signal word  
Hazard statements

Warning  
Causes eye irritation.

Causes skin irritation.  
Suspected of causing cancer if inhaled.

Precautionary statements  
Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective breathing gear, such as an N95 or P95 respirator. Wash skin thoroughly after handling.

Response

If on skin: wash with plenty of water. If in eyes. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage  
Disposal  
Hazards not otherwise classified

Keep away from intense heat, flames. Store locked up.  
Dispose of in accordance with local regulations.  
None known.

Relevant routes of exposure  
Inhalation

Skin, eyes, inhalation.

Skin contact

Melted product is flammable and produces intense heat and dense smoke during burning. Irritating gases and fumes may be given off during burning or thermal decomposition. Gases and fumes evolved during thermal processing or decomposition can cause skin irritation.

Eye contact

Dust can cause eye irritation. Gases and fumes evolved during thermal processing or decomposition can cause eye irritation.

Ingestion

No data available.

### 3. HAZARDOUS INGREDIENTS: COMPOSITION/INFORMATION

INGREDIENT	% WEIGHT	PEL-OSHA	TLV-ACGIH	NIOSH REL
Chlorinated polyvinyl chloride CAS 68648-82-8	>80%	None established for CPVC Particulates not otherwise classified: 15 mg/m <sup>3</sup>	None established for CPVC Particulates not otherwise classified: 10 mg/m <sup>3</sup> (inhalable fraction)	None established
Titanium dioxide CAS 13463-67-7	0-5%	15 mg/m <sup>3</sup> , total dust	10 mg/m <sup>3</sup> TWA	None established

### 4. FIRST AID MEASURES

**EYE CONTACT:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes.

**SKIN CONTACT:** Rinse with water. Remove contaminated clothing and shoes. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes before reuse.

**INHALATION:** If vapors from excessive heating, burning or decomposition products are inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing, such as collar, tie, belt, or waistband. In case of inhalation of decomposition

products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance.

**INGESTION:** Wash out mouth with water. Remove dentures, if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Loosen tight clothing, such as collar, tie, belt, or waistband.

**Notes to physician:** In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under surveillance for 48 hours

**Specific treatments:** None known

## 5. FIRE FIGHTING MEASURES

### FLAMMABLE PROPERTIES

**FLASH POINT:** No data. Decomposition products may be combustible.

**FLAMMABLE LIMITS:** LEL: No Data UEL: No data

**EXTINGUISHING MEDIA:** Use media appropriate for surrounding fire.

**FIRE AND EXPLOSION HAZARDS:** Not flammable. Thermal decomposition may produce hydrogen chloride, carbon oxides, small amounts of benzene and aromatic and aliphatic hydrocarbons, phosgene.

**PROTECTIVE MEASURES FOR FIRE FIGHTERS:** Firefighters must wear a NIOSH-approved, full-face piece self-contained breathing apparatus (SCBA) operated in positive pressure mode and full turnout or bunker gear with additional chemical protective clothing as necessary to protect against thermal decomposition products.

**SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS:** If there is a fire, promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment, and emergency measures

**For non-emergency personnel** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** If specialized clothing is required to deal with decomposition products or fumes from burning or excessive heating, take note of information in Section 8 on suitable and unsuitable materials. See also information in "for non-emergency personnel."

**Environmental precautions** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

### Methods and materials for containment and clean-up

**Small spill** Avoid dust generation. Vacuum dust with equipment fitted with a HEPA filter

Large spill	<p>and place in a closed, labeled waste container. See Section 1 for emergency contact information.</p> <p>Move containers from spill area. Approach release from upwind. Prevent entry into sewers, waterways, basements, and confined areas. Avoid dust generation. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. See Section 1 for emergency contact information.</p>
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### 7. HANDLING AND STORAGE

Conditions for safe storage, including any incompatibilities	Store in a dry place away from direct sunlight, heat, and incompatible materials. Avoid intense heat and flames.
<b>Precautions for safe handling</b> Protective measures	Put on appropriate personal protective equipment (see Section 8). Do not handle until all safety precautions have been read and understood. Do not get particles, vapors or fumes in eyes, on skin, or on clothing. Do not ingest. If during normal use, the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.
Advice on general occupational hygiene	Employees must wash hands and face before eating, drinking, or smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information on hygiene measures.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below recommended and statutory limits.

**RESPIRATORY PROTECTION:** Cutting or sanding this product can generate dust. Used a properly fitted particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the respirator. A NIOSH-approved N95 single use or P95 multiple use respirator will protect the employee from at least 95% of airborne particles. Follow the respirator manufacturer's instructions for proper use. If adhesives or other substances are used with this product, refer to the product manufacturer's safety data sheet for applicable respiratory protective measures.

**SKIN PROTECTION:** Chemical-resistant, impervious gloves complying with an approved standard should be worn when handling this or any chemical product, if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures containing several substances, the protection time of the gloves cannot be accurately estimated. If adhesives or other substances are used with this product, refer to the product manufacturer's safety data sheet for applicable skin protective measures.

**BODY PROTECTION:** Personal protective equipment for the body should be selected on the task being performed and the risks involved, and should be approved by a specialist before handling this product. If adhesives or other substances are used with this product, refer to the product manufacturer's safety data sheet for applicable skin protective measures.

**EYE/FACE PROTECTION:** Safety eyewear complying with an approved standard must be used when a risk assessment indicates this is necessary to avoid exposure to dust. Particulates and dust can be formed when cutting, grinding or sanding this product. If contact with dust or particulates is possible, the following should be worn unless the assessment indicates a higher degree of protection: safety glasses with side shields. If adhesives or other substances are used with this product, refer to the product manufacturer's safety data sheet for applicable eye and face protective measures.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE:</b>	Solid. Tan/grey
<b>ODOR:</b>	Not applicable.
<b>ODOR THRESHOLD:</b>	Not available
<b>BOILING POINT:</b>	Not available
<b>FLASH POINT:</b>	Not applicable
<b>FLAMMABILITY:</b>	Melted product is flammable.
<b>AUTOIGNITION TEMPERATURE:</b>	Not applicable
<b>DECOMPOSITION TEMPERATURE:</b>	Not available
<b>LOWER/UPPER EXPLOSION LIMITS:</b>	Not available
<b>VAPOR PRESSURE:</b>	Not available
<b>LIQUID DENSITY:</b>	Not available
<b>SPECIFIC GRAVITY:</b>	Approximately 1.4
<b>MELTING POINT:</b>	Not available
<b>pH:</b>	Not available
<b>SOLUBILITY:</b>	Insoluble
<b>% VOLATILE:</b>	Not available
<b>VISCOSITY:</b>	Not available

### 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal temperatures and pressures.
<b>Reactivity:</b>	Stable at normal temperatures and pressures.
<b>Conditions to avoid:</b>	Heat, flames, sparks and other sources of ignition.
<b>Incompatible materials/conditions:</b>	Consult the Charlotte Pipe and Foundry chemical resistance guide.
<b>Hazardous decomposition products:</b>	Hydrogen chloride, carbon oxides, small amounts of benzene and aromatic and aliphatic hydrocarbons, phosgene.
<b>Hazardous polymerization:</b>	Not available.

### 11. TOXICOLOGICAL INFORMATION

<b>ACUTE TOXICITY:</b>	No toxicological data is available for the finished product.
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**SENSITIZATION:** No data available.

**MUTAGENICITY:** No data available.

**DEVELOPMENTAL:** No data available.

**Fertility:** No data available.

**CARCINOGENICITY:** This product contains titanium dioxide, which is classified by the International Agency for Research on Cancer as 2B: possibly carcinogenic to humans. Not listed on the National Toxicology Program Report on Carcinogens or OSHA Subpart Z carcinogen list.

**REPRODUCTIVE TOXICITY:** Not available

**TERATOGENICITY:** Not available

**SPECIFIC TARGET ORGANS – SINGLE EXPOSURE:** Not available

**SPECIFIC TARGET ORGANS – REPEATED EXPOSURE:** Not available

**ASPIRATION HAZARD:** Not available

**INFORMATION ON THE LIKELY ROUTES OF EXPOSURE:**

**Potential acute health effects**

Eye contact	No known significant effects or critical hazards. Dust can cause eye irritation.
Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	Skin irritant.
Ingestion	No known significant effects or critical hazards.

**Symptoms related to the physical, chemical, and toxicological characteristics**

Eye contact	No data available.
Inhalation	No data available
Skin contact	Adverse symptoms may include irritation.
Ingestion	No data available

**Immediate, delayed and chronic effects from short term exposure**

Short term exposure

Potential immediate effects	No data available.
Potential delayed effects	No data available

Long term exposure

Potential immediate effects	No data available.
Potential delayed effects	No data available

Potential chronic effects

General	No data available.
Carcinogenicity	May cause cancer. Risk of cancer depends on duration and level of exposure.



## 12. ECOLOGICAL INFORMATION

### Numerical measures of toxicity

No data available

### Persistence and degradability

Does not biodegrade over time.

### Bioaccumulative potential

No data available

### Mobility in soil

No data available.

Other adverse effects: No known significant or critical hazards.

## 13. DISPOSAL CONSIDERATIONS

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste should not be disposed of to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste and packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material must be disposed of in a safe way.

## 14. TRANSPORT INFORMATION

<b>PROPER SHIPPING NAME:</b>	Not Regulated
<b>HAZARD CLASS:</b>	Not Regulated
<b>IDENTIFICATION NUMBER:</b>	Not Regulated
<b>SHIPPING LABEL:</b>	Not Regulated
<b>PACKING GROUP:</b>	Not Regulated

## 15. REGULATORY INFORMATION

United States

TSCA 8(b):

All ingredients are listed on the U.S. Toxic Substances Control Act inventory.

Airborne unbound particles of titanium dioxide of respirable size are listed as being carcinogenic per California Proposition 65.

## 16. OTHER INFORMATION

Date of Preparation: 11 December 2013

CAS:	Chemical Abstracts Service
CFR:	Code of Federal Regulations
HEPA	High-Efficiency Particulate Air (filter)
IARC:	International Agency for Research on Cancer
LD50	Lethal dose to 50% of exposed laboratory animals
LC50	Lethal concentration to 50% of exposed laboratory animals
LEL:	Lower Explosive Limit
mg/l	Milligrams per liter
NIOSH:	National Institute for Occupational Safety and Health (US)
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration (US)
PEL:	Permissible Exposure Limit
TSCA	Toxic Substances Control Act
TLV:	Threshold Limit Value – American Conference of Governmental Industrial Hygienists (ACGIH)
TWA:	Time Weighted Average
UEL:	Upper Explosive Limit
ug/ m <sup>3</sup>	Micrograms per cubic meter

#### **DISCLAIMER**

NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, SAFETY, SUITABILITY, STABILITY OR OTHERWISE FOR THE ABS MATERIALS AS REPRESENTED IN THIS MSDS SHEET. Charlotte Pipe and Foundry assumes no liability whatsoever for the use of or reliance upon this information. The information and data contained in this MSDS has been compiled from information believed to be accurate and is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage, handling and disposal of the product in compliance with applicable federal, state, and local laws and regulations.



## DATA SHEET NO. 3551-200

### CS-309™-20 Clear Curing & Sealing Compound (VOC-Compliant)

#### DESCRIPTION

CS-309-20 is a clear, non-yellowing formulation of 20% acrylic resins, plus select plasticizers, blended with a quick-evaporating solvent. When applied on freshly placed concrete surfaces, a tough, uniform, moisture-retentive film for simultaneous curing and sealing is formed. CS-309-20 meets the 350 g/L VOC limit for concrete curing compounds.

#### USES

CS-309-20 is used for curing and sealing newly placed concrete, vertical, or horizontal applications, when a high solids and high water retentive impermeable seal yielding superior curing efficiency is desired.

CS-309-20 is ideal for stamped and textured concrete surfaces and moderate traffic applications.

CS-309-20 is suitable for commercial and industrial applications, such as sidewalks, patios, driveways, multi-level parking decks. It provides a durable finish that resists chemicals, oils, grease, de-icing salts, and abrasion.

CS-309-20 is designed for exterior use only. For interior applications, specify and apply VOCOMP -20, VOCOMP-25, or VOCOMP-30 curing and sealing compound from W. R. MEADOWS.

#### FEATURES/BENEFITS

- Breathable film allows moisture in cured concrete to evaporate.
- Retains mix water in concrete to permit complete hydration of the cement paste for hard, dense concrete.
- Helps minimize hair checking, thermal cracking, dusting, and other defects.
- Provides excellent moisture retention properties.
- Can be recoated after thorough cleaning of the existing surface.
- Accepts chlorinated rubber- and oil-based paints and most flooring adhesives.

#### PACKAGING

3.78 Litre Cans  
18.9 Litre Pails  
205 Litre Drums

#### COVERAGE

7.35 - 14.73 m /L (300 - 600 ft. /gal.)

Coverage is approximate and depends on the porosity of the surface.

#### SHELF LIFE

When stored indoors and in original, unopened containers at temperatures between 4 - 32 C, shelf life is a minimum of two years from date of manufacture.

#### SPECIFICATIONS

- ASTM C309, Type 1, Class B
- Complies with Canada VOC Concentration Limits for Architectural Coatings Regulations

#### APPLICATION

**Surface Preparation ...** Apply as soon as all surface water has disappeared and the concrete surface will not be marred by walking workers. Surface to receive sealer must be dry and free of contaminants. Remove all stains or discolourations.

**Application Method ...** Apply using low-pressure sprayer, such as a Chapin 19069. An 80 fan pattern spray nozzle rated at 1.8 L (1.0 gpm), such as a Chapin 1-5943, provides an excellent even coating. Please contact sprayer manufacturer to ensure suitability of sprayer with product.

Apply product as soon as all surface water has disappeared and the concrete surface will not be marred by walking workmen. Apply evenly over entire surface; avoid puddling in low areas.

Product should not be applied to concrete containing excessive moisture. Entrapped moisture in a solvent-based sealer may cause the film to peel and/or turn white (blush).

Continued over

Additional coats may be applied once a previous coat has dried.

For optimum protection, apply a further coating of the product and/or apply a coating of HIAC , or HIAC-PLUS  
 Note: Concrete must be a minimum of seven days old prior to the application of HIAC or HIAC-PLUS.

Note: In cases when product is applied to existing concrete surfaces (more than 28 days old), the variations in colouration of the sands and aggregate present in the existing surface may be enhanced, causing the surface to appear discolored.

**Drying Time ...** Product dries quickly. Drying times may be extended depending on application rate, temperature, humidity, and project conditions. Restrict foot traffic for at least four hours. Twelve hours is preferable.

**Cleanup ...** Clean tools after use with a solvent such as SEALTIGHT SOLVENT, xylene, or toluol.

#### PRECAUTIONS

For industrial use only. Apply without dilution or thinning VOC content of the product. FOR BETTER APPLICATION ONLY. Surfaces treated with CS-309-20 may become slippery under certain conditions. CS-309-20 should not be applied during high temperature conditions in direct sunlight. These conditions cause rapid evaporation, which does not allow the film to form properly. Under these conditions, the film may peel, bubble and/or turn white (blush).

Do not apply CS-309-20 if the temperature of the concrete is below 4 °C (40 °F). CS-309-20 may be used on coloured concrete, but mottling may occur. Do not use on dense or non-porous surfaces, i.e. brick, stone, etc.

Concrete containing calcium chloride will remain dark longer when treated with CS-309-20. Concrete floors properly cured with CS-309-20 meet section 8.9 Adhesion of Tile Cements of ASTM C 1315. For other specifications, secure the approval of the paint or resilient flooring manufacturer before applying CS-309-20. The specifier and user shall determine the suitability of product for specific applications and assume all responsibility in connection therewith.

CS-309-20 is a membrane-forming sealer. All membrane-forming sealers may darken concrete or magnify imperfections caused by variations in the porosity and/or finishing of the concrete.

#### HEALTH AND SAFETY

Contains solvent. Use with adequate ventilation and avoid prolonged breathing of vapours that may cause dizziness or suffocation. Avoid contact with skin and/or eyes. See product label and Material Safety Data Sheet for additional information. Read and follow all instructions and precautions. Harmful or fatal if swallowed.

#### MASTERFORMAT NUMBER AND TITLE

03 39 23 - Membrane Concrete Curing

#### LEED INFORMATION

May help contribute to LEED credits:

- IEQ Credit 4.2: Low-Emitting Materials – Paints and Coatings
- IEQ Credit 4.3: Low-Emitting Materials – Flooring
- MR Credit 2: Construction Waste Management
- MR Credit 5: Regional Materials

For most current data sheet, further LEED information, and MSDS, visit [www.wrmeadows.com](http://www.wrmeadows.com).

2013-02-06





## 1. Identification

**Product identifier** Cutting Oil Thread Cutting Lubricant

**Other means of identification**

**Product code** 14050

**Recommended use** Cutting oil

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufactured or sold by:**

**Company name** CRC Industries, Inc.  
**Address** 885 Louis Dr.  
Warminster, PA 18974 US

**Telephone**

**General Information** 215-674-4300

**Technical Assistance** 800-521-3168

**Customer Service**

**24-Hour Emergency (CHEMTREC)** 800-272-4620

703-527-3887 (US)

703-527-3887 (International)

**Website** www.crcindustries.com

## 2. Hazard(s) identification

**Physical hazards** Flammable aerosols Category 1  
Gases under pressure Liquefied gas

**Health hazards** Not classified.

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger

**Hazard statement** Extremely flammable aerosol. Contains gas under pressure; may explode if heated.

**Precautionary statement**

**Prevention**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not apply while equipment is energized. Pressurized container: Do not pierce or burn, even after use. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area.

**Response**

Wash hands after handling.

**Storage**

Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

**Disposal**

Dispose of contents/container in accordance with local/regional/national regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

## 3. Composition/information on ingredients

**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), hydrotreated heavy naphthenic		64742-52-5	70 - 80
Liquefied Petroleum Gas		68476-86-8	20 - 30

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	If swallowed, observe for signs of stomach discomfort or nausea. If symptoms persist, seek medical help. Do not induce vomiting. If there is any suspicion of aspiration into lungs, obtain immediate medical attention.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire-fighting equipment/instructions</b>	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
<b>General fire hazards</b>	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many vapors are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. For product usage instructions, please see the product label.
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Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	PEL	5 mg/m3	Mist.
		2000 mg/m3 500 ppm	

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	TWA	5 mg/m3	Inhalable fraction.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	Ceiling	1800 mg/m3	
	STEL	10 mg/m3	Mist.

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

#### Skin protection

**Hand protection** Wear protective gloves such as: Nitrile. Neoprene.

**Other** Wear suitable protective clothing.

**Respiratory protection** If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Liquid.

**Form** Aerosol.

**Color** Brown.

**Odor** Mild petroleum.

**Odor threshold** Not available.

**pH** Not available.

<b>Melting point/freezing point</b>	-40 °F (-40 °C) estimated
<b>Initial boiling point and boiling range</b>	500 °F (260 °C) estimated
<b>Flash point</b>	> 300 °F (> 148.9 °C) Cleveland Open Cup
<b>Evaporation rate</b>	Slow.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	965.3 hPa estimated
<b>Vapor density</b>	> 5 (air = 1)
<b>Relative density</b>	0.85
<b>Solubility (water)</b>	Negligible.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	600 °F (315.6 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity (kinematic)</b>	Not available.
<b>Percent volatile</b>	94.4 % estimated

## 10. Stability and reactivity

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<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Heat, flames and sparks. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides. Sulfur oxides. Aldehydes.

## 11. Toxicological information

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### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Prolonged skin contact may cause temporary irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

**Acute toxicity** Not available.

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
Cutting Oil Thread Cutting Lubricant		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	2841 mg/kg estimated
<b>Inhalation</b>		
LC50	Rat	30 mg/l, 4 hours estimated



<b>Oral</b> LD50	Rat	5924 mg/kg estimated
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\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not expected to be an aspiration hazard.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results
Cutting Oil Thread Cutting Lubricant		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50 Daphnia	25000 mg/l, 48 hours estimated
Fish	LC50 Fish	16094.4199 mg/l, 96 hours estimated
<b>Components</b>		
<b>Species</b>		
<b>Test Results</b>		
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	LC50 Pimephales promelas	> 30000 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal of waste from residues / unused products</b>	The dispensed liquid product is not a RCRA hazardous waste (See 40 CFR Part 261.20 - 261.33). Empty container can be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	Not regulated.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

<b>DOT</b>	
<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable, Limited Quantity

<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	N82
<b>Packaging exceptions</b>	306
<b>Packaging non bulk</b>	None
<b>Packaging bulk</b>	None

**IATA**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable, Limited Quantity
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	10L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed.
<b>Cargo aircraft only</b>	Allowed.

**IMDG**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS, LIMITED QUANTITY
<b>Transport hazard class(es)</b>	
<b>Class</b>	2
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-D, S-U
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

## 15. Regulatory information

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**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**CERCLA Hazardous Substances: Reportable quantity**

Not listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Food and Drug Administration (FDA)** Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Section 311/312 Hazard categories**  
 Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - Yes  
 Pressure Hazard - Yes  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**US state regulations**

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Liquefied Petroleum Gas (CAS 68476-86-8)  
 Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)

**US. Massachusetts RTK - Substance List**

Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

None.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**Volatile organic compounds (VOC) regulations**

**EPA**

**VOC content (40 CFR 51.100(s))** 100 %

**Consumer products (40 CFR 59, Subpt. C)** Not regulated

**State**

**Consumer products** This product is regulated as a Cutting or Tapping Oil (aerosol). This product is compliant for use in all 50 states. Local restriction: This product cannot be used in the South Coast Air Quality Management District of California.

**VOC content (CA)** 20 %

**VOC content (OTC)** 20 %

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

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<b>Issue date</b>	04-28-2015
<b>Revision date</b>	05-21-2015
<b>Prepared by</b>	Allison Cho
<b>Version #</b>	02
<b>Further information</b>	CRC # 574
<b>HMIS® ratings</b>	Health: 1 Flammability: 3 Physical hazard: 0 Personal protection: B
<b>NFPA ratings</b>	Health: 1 Flammability: 3 Instability: 0

**NFPA ratings**



**Disclaimer**

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries.



## Safety Data Sheet

**SDS ID: Stock Code FLOW**

**Revision date:** June 26, 2015

### Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product name:** FLOW-AIDE Biodegradable System Descaler

**Synonyms:** Aqueous water scale cleaner/descaler

**Chemical family:** N/A

**Producer:** J.C. Whitlam Manufacturing Company

200 West Walnut Street

P.O. Box 380

Wadsworth, Ohio 44282-0380

[www.icwhitlam.com](http://www.icwhitlam.com)

**Telephone:** 330-334-2524 Available during normal business hours

**Emergency:** 330-334-2524 Available during normal business hours

### Section 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

May be harmful if swallowed. Causes mild skin irritation. Causes eye irritation.

**GHS Label elements, including precautionary statements:**



**Warning**

**Precautionary Statements:** P280: Wear protective gloves and eye protection.  
 P281: Use personal protective equipment as required.  
 P302+P352: IF ON SKIN: Wash with soap and water.  
 P321: Specific treatment, see section 4 of this SDS.  
 P332+P313: If skin irritation occurs, get medical attention.  
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes, remove contact lenses if present and easy to do, continue rinsing.  
 P337+P313: If eye irritation persists, get medical attention.

**Inhalation:** Inhalation of mist or spray may cause mild irritation of the respiratory tract.

**Ingestion:** May be harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting, and diarrhea.

**Skin Contact:** May cause mild to moderate irritation. Repeated and prolonged use may result in drying or cracking of skin or dermatitis.

**Eye Contact:** Causes moderate to severe eye irritation. Symptoms include redness, stinging, tearing and swelling.

### Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Material information:

Name	CAS No.	Weight %
Hydrogen Chloride, aqueous	7647-01-0	<10

*\*Note: The above weight percentages are represented in ranges as estimates. Due to variation among production batches, component percentages may vary.*

### Section 4. FIRST AID MEASURES

- Inhalation:** Product is not designed to be misted, however, if product mist causes respiratory irritation or distress, move the exposed person to fresh air immediately. If irritation persists, seek medical attention.
- Skin contact:** Wash affected area with soap and water. If irritation persists, seek medical attention.
- Ingestion:** Do NOT induce vomiting, drink milk, egg whites, etc. and seek immediate medical attention.
- Eye contact:** Immediately flush eyes with large amounts of water for 15 minutes. Remove contact lenses if present, after the first 5 minutes and continue rinsing. If irritation persists, seek medical attention.

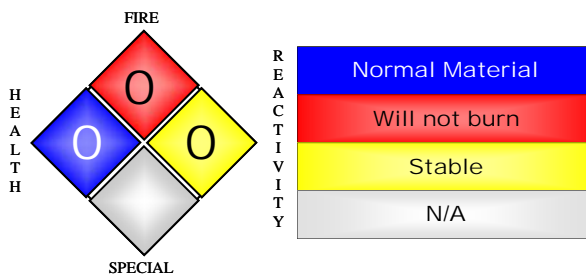
### Section 5. FIREFIGHTING MEASURES

**Suitable extinguishing media:** Use extinguishing media suitable for the surrounding fire.

**Specific hazards:** None known.

**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus (pressure demand, MSHA/NIOSH approved or equivalent and full protective gear).

	NFPA rating:	HMIS rating:
Health:	0	0
Flammability:	0	0
Instability/reactivity:	0	0
Other:	N/A	N/A



## Section 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Wear appropriate protective clothing designated in Section 8. Ventilate the area.
<b>Large Spill:</b>	Rinse area with copious amounts of water to dilute. Sodium bicarbonate may also be used to absorb and/or neutralize liquid. Dispose of material in accordance with the local, State, Provincial, and Federal regulations for your location.
<b>Methods for Containment and Clean up</b>	Absorb with liquid binding material.

## Section 7. HANDLING AND STORAGE

<b>Handling:</b>	Observe label precautions. Wear all appropriate protective equipment specified in Section 8. Keep containers closed when not in use.
<b>Storage:</b>	Keep in cool, dry, ventilated storage areas in closed containers. Transfer only to approved containers having correct labeling. Containers that have been opened should be carefully resealed and kept upright to prevent leakage. The recommended storage temperature is between -12°C/10°F and 81°C/180°F. Keep out of reach of children.

## Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Occupational Exposure Limits:** Contains no substances with occupational exposure values.

**Engineering Measures:** Maintain general industrial hygiene practices. Use normal exhaust, vent to atmosphere. Facilities storing or using this material should be equipped with an eyewash station.

### PERSONAL PROTECTIVE EQUIPMENT

**Respiratory protection:** None required under normal operating conditions, even when materials vapors and/or mists occur.

**Skin and body protection:** Recommended however not mandated. Material is non-toxic and can be held in the open hand without risk.

**Eye protection:** Wear protective goggles or safety glasses during use.

**Hygiene measures:** Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking or using the lavatory.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Yellow liquid
<b>Physical state (solid/liquid/gas):</b>	Liquid
<b>Substance type (pure/mixture):</b>	Mixture
<b>Color:</b>	Yellow
<b>Odor:</b>	Citrus
<b>Molecular weight:</b>	Not Available
<b>pH:</b>	Unreadable, generally <3
<b>Boiling point/range (5-95%):</b>	213°F (101°C) @760 mm Hg
<b>Melting point/range:</b>	Not Available
<b>Decomposition temperature:</b>	Not Available
<b>Specific gravity:</b>	1.045
<b>Vapor density:</b>	>1
<b>Vapor pressure:</b>	30 Torr.
<b>Evaporation rate (Butyl acetate= 1):</b>	Slow
<b>Flash point, method used:</b>	Not flammable
<b>Water solubility:</b>	Miscible
<b>VOC Content:</b>	0
<b>Auto-ignition temperature:</b>	Not Available
<b>Flammable limits in air — lower (%):</b>	Not Available
<b>Flammable limits in air — upper (%):</b>	Not Available

## Section 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available.
<b>Stability:</b>	Stable under recommended storage conditions.
<b>Possibly hazardous reactions:</b>	None known.
<b>Conditions to avoid:</b>	Extreme temperatures, contact with incompatible materials.
<b>Incompatible Materials:</b>	Strong alkalis, oxidizing agents, chlorinated products (such as bleach).
<b>Hazardous decomposition products:</b>	None known.
<b>Polymerization:</b>	Will not occur.

## Section 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:** This product is not classified as hazardous according to OSHA 1910.1200.

**Acute oral toxicity:** Product is expected to have low acute oral toxicity.

**Acute inhalation toxicity:** Product is expected to have low acute inhalation toxicity.

**Acute dermal toxicity:** Product is expected to have low acute dermal toxicity.

**Skin irritation:** May cause mild skin irritation.

**Eye irritation:** Causes moderate to severe eye irritation.

**Sensitization:** No sensitizing effects known.

**Carcinogenic categories:** None of the components of this product are listed as carcinogens by AGCIH, IARC, NTP or OSHA.



## Section 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects:** None  
**Persistence:** None  
**Degradability:** None

## Section 13. DISPOSAL CONSIDERATIONS

**Cleanup considerations:** Unused product can be disposed of down sanitary sewers with water. Used solution may be hazardous as a result of the pre-existing contaminants present in the equipment being cleaned. Dispose of material in accordance with the local, State, Provincial, and Federal regulations for your location.

**Contaminated packaging:** Rinse with water and offer for recycling, if available in your area. Otherwise, dispose as non-hazardous waste.

## Section 14. TRANSPORT INFORMATION

D.O.T. (U.S.): Not Regulated

## Section 15. REGULATORY INFORMATION

### U.S. Federal Regulations

**OSHA Hazard Communication Standard:** This material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

**OSHA Process Safety Management Standard:** Components of this product are not regulated under OSHA PSM Standard 29 CFR 1910.119.

**TSCA Status:** All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory.

**SARA Section 311/312 Hazard Categories:** Not classified as hazardous.

**SARA 313 Information:** Not listed.

**Comprehensive Response Compensation and Liability Act (CERCLA):** Not reportable.

**Clean Air Act (CAA):** This product does not contain any chemicals that are listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

**Clean Water Act (CWA):** None of the chemicals in this product are listed as Hazardous Substances, Priority Pollutants or Toxic Pollutants under the CWA.

### U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains no chemical(s) known to the state of California to cause cancer or other reproductive harm.

## Canada

**WHMIS Hazard Symbol and Classification:** Not applicable/Not classified as hazardous  
**Canadian Ingredient Disclosure List (IDL):** None of the components in this product are listed on the IDL.

**Canadian National Pollutant Release Inventory (NPRI):** None of the components in this product are listed on the NPRI.

### Section 16. OTHER INFORMATION

Please use FLOW-AIDE only as directed. If procedures are not published for your particular application, please call for assistance. FLOW-AIDE is designed to be diluted with water and water only. Use FLOW-AIDE at an ambient temperature, do not heat.

Vent circulating solution to atmosphere. Some adverse reactions may occur with some alloys of aluminum, magnesium, zinc and/or other sacrificial metallurgies.

**CAUTION:** FLOW-AIDE is non-corrosive, but the application of FLOW-AIDE may expose preexisting corrosion under scale (pitting, holes or similar damage) that can result in leaks in pipes, equipment or systems.

The information and recommendations contained herein are based upon tests, data, and information resources believed to be reliable. However, the J.C. Whitlam Manufacturing Company, Inc., and its related operations or divisions (Whitlam) do not guarantee the accuracy or completeness, nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of goods, the merchantability of the goods or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage may be required. Whitlam assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of this data. No warranty against infringement of any patent, copyright or trademark is made or implied.

# MATERIAL SAFETY DATA SHEET

## MSDS L-108      REVISION 21

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

The Dial Corporation 15101 N. Scottsdale Road Scottsdale, Arizona 85254-9934	Medical Emergencies: 1-888-689-9082 Chemtrec: 1-800-424-9300 (24 Hours Daily) Other Information: 1-888-468-6673
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PRODUCT: Liquid Hand Soap      DATE OF ISSUE: July 23, 2007

TRADE NAMES/SYNONYMS: Dial® Antibacterial Liquid Hand Soap — Gold  
Dial® Daily Care Antibacterial Liquid Hand Soap—Lemon Fresh  
Dial® Daily Care Antibacterial Liquid Hand Soap—Aloe

CHEMICAL FAMILY: Mixture

I.D. NUMBERS: 901785 (Gold); 99101420 (Lemon Fresh); 99101711 (Aloe)

### SECTION 2: HAZARD IDENTIFICATION

#### EMERGENCY OVERVIEW

**CAUTION:** This product is a clear gold, opaque yellow or opaque green liquid with a pleasant fragrance. Direct contact with eyes may cause irritation. Repeated or prolonged excessive contact with skin may cause irritation or dermatitis. No significant environmental effects. Not a fire hazard. Product is stable.

This product is labeled in accordance with guidelines set forth in the Food, Drug, and Cosmetic Act. The use pattern and exposure in the workplace are generally not consistent with those experienced by consumers. The requirements of the Occupational Safety and Health Administration applicable to this Material Safety Data Sheet may differ from the requirements of the FD&C Act and as a result, this MSDS may contain additional health hazard information not pertinent to consumer use and not found on the product label.

#### REGULATORY STATUS

While this product is not considered to be hazardous under OSHA's Hazard Communication Standard (29 CFR 1900.1200), this MSDS includes valuable information that is critical for safe handling and proper use of this product. This MSDS should be retained and available for employees and other users of this product.

#### POTENTIAL HEALTH EFFECTS

**NOTE:** The acute health effects described below are those which could potentially occur for the finished product. They are based on the toxicology information available for the finished product and/or each hazardous ingredient, and are consistent with the product type and the likelihood of a specific route of exposure. Known chronic health effects related to exposure to a specific ingredient are indicated.

**EYE CONTACT:** This product may cause irritation.

**SKIN CONTACT:** Repeated or prolonged excessive contact may cause irritation or dermatitis.

**INGESTION:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**INHALATION:** Unlikely to occur due to the physical properties of the product.

**CHRONIC HEALTH EFFECTS:** None known.

**MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE:** Pre-existing skin conditions.

#### POTENTIAL ENVIRONMENTAL EFFECTS

See Section 12: Ecological Information.

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Based on our hazard evaluation, the following chemical substance(s) in this product have been identified as hazardous.

<u>INGREDIENT</u>	<u>CAS NUMBER</u>	<u>PERCENT (w/w)</u>
Sodium Laureth Sulfate	9004-82-4	5 – 10 %
Ammonium Lauryl Sulfate	2235-54-3	1 – 5 %
Decyl Polyglucose	66515-73-1 & 110615-47-9	1 – 5 %
Cocamidopropyl Betaine	61789-40-0	1 – 5 %
Glycerin	56-81-5	1 – 5 %

**SECTION 4: FIRST AID MEASURES**

**EYES:** Rinse eyes immediately with plenty of water, occasionally lifting upper and lower lids, until no evidence of product remains. Get medical attention if pain or irritation persists.

**SKIN:** Rinse affected area with plenty of water until no evidence of product remains. Get medical attention if irritation persists.

**INGESTION:** Treat symptomatically and supportively. Maintain airway and respiration. If vomiting occurs, keep head below hips to prevent aspiration. Dilution by rinsing the mouth and giving water or milk to drink is generally recommended. If unconscious, the victim should not be given anything to drink. Contact physician or local poison control center.

**INHALATION:** Remove from exposure area to fresh air. Keep affected person warm and at rest. Treat symptomatically and supportively. Contact physician or local poison control center. If breathing has stopped, give artificial respiration, and get medical attention immediately.

**NOTE TO PHYSICIAN:** The physician's judgment should be used to control symptoms and clinical condition based on the individual reactions of the patient.

**SECTION 5: FIRE FIGHTING MEASURES****FLAMMABLE PROPERTIES**

OSHA FLAMMABILITY CLASSIFICATION: Not applicable

FLASH POINT: None

UPPER FLAMMABILITY LIMIT: Not applicable

LOWER FLAMMABILITY LIMIT: Not applicable

AUTO-IGNITION TEMPERATURE: Not applicable

FIRE AND EXPLOSION HAZARD: Negligible fire hazard when exposed to heat or flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and oxides of nitrogen.

**EXTINGUISHING MEDIA**

Dry chemical, carbon dioxide, water spray or regular foam.

**PROTECTION OF FIREFIGHTERS**

In case of fire, wear a full-face positive-pressure self-contained breathing apparatus and protective suit. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Use flooding amounts of water as a fog, solid streams may be ineffective. Avoid breathing vapors; keep upwind.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Wear skin, eye and respiratory protection as recommended in Section 8. Stop or reduce any leaks if it is safe to do so. Spills present a slipping hazard. Keep unnecessary personnel away. Ventilate spill area if possible. Make sure area is slip-free before re-opening to traffic.

#### ENVIRONMENTAL PRECAUTIONS

Small or household quantities may be disposed in sewer or other liquid waste system. For larger quantities check with your local water treatment plant.

#### METHODS FOR CONTAINMENT AND CLEAN UP

SMALL SPILLS: Contain and absorb with absorbent material and place into containers for later disposal. Wash site of spillage thoroughly with water. LARGE SPILLS: Dike far ahead of spill to prevent further movement. Recover by pumping or by using a suitable absorbent material and place into containers for later disposal. Dispose in suitable waste container.

## SECTION 7: HANDLING AND STORAGE

#### HANDLING:

Do not get in eyes. Do not take internally. Use with adequate ventilation. Avoid generating aerosols and mists.

#### STORAGE:

Store in original containers in a cool dry area. Store away from incompatible substances and excessive heat. Storage areas for large quantities (warehouse) should be well ventilated. Keep the containers tightly closed when not in use.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

This product is a personal care or cosmetic product. The use of this product by consumers is safe under normal and reasonable foreseen use. The information provided below refers to the occupational settings.

#### WORKER EXPOSURE LIMITS

The following exposure limits exist for the ingredients listed below. The TLV-TWA is the ACGIH Threshold Limit Value – Time Weighted Average. TLV-Ceiling Limit is the ACGIH Threshold Limit Value – Ceiling Limit. PEL-TWA is the OSHA Permissible Exposure Limit.

INGREDIENT	CAS NUMBER	EXPOSURE LIMIT
Glycerin	56-81-5	TLV-TWA: 10 mg/m <sup>3</sup> (mist), PEL-TWA: 5 mg/m <sup>3</sup> (respirable fraction), PEL-TWA: 10 mg/m <sup>3</sup> (total mist)

ENGINEERING CONTROLS: Provide local exhaust or general dilution ventilation to keep exposure to airborne contaminants below the permissible exposure limits where mists or vapors may be generated.

RESPIRATOR: Air contamination monitoring should be carried out where mists or vapors are likely to be generated, to assure that the employees are not exposed to airborne contaminants above the permissible exposure limits. If respiratory protection is required, it must be based on the contamination levels found in the workplace, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

FOR FIRE FIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS: Any self-contained breathing apparatus that has a full-face piece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator that has a full-face piece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure demand or other positive-pressure mode.

CLOTHING: Protective clothing is required where repeated or prolonged skin contact may occur.

GLOVES: Chemical-resistant gloves are required where repeated or prolonged skin contact may occur.

EYE/FACE PROTECTION: Splash-proof safety glasses are required to prevent eye contact where splashing of product may occur.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear gold, opaque yellow or opaque green liquid with a pleasant fragrance.

ODOR/ODOR THRESHOLD: Pleasant fragrance      PHYSICAL STATE: Liquid

LIQUID HAND SOAP		
pH (@ 25°C):	5.8-6.9 @ 25°C	VAPOR DENSITY: Not available
BOILING POINT:	>200°F (>93°C)	VAPOR PRESSURE: Not available
MELTING/FREEZING POINT:	Not available	FLASH POINT: See Section 5.
FLAMMABLE PROPERTIES:	See Section 5.	SOLUBILITY IN WATER: Complete
DENSITY/SPECIFIC GRAVITY: 1.017-1.026 @ 25°C		EVAPORATION RATE: Not available
OCTANOL/WATER PARTITION COEFFICIENT (K <sub>ow</sub> ):	Not available	
VISCOSITY:	3000-13,000 cps @ 25°C (Brookfield LVF, Spindle #3, 12 rpm)	

## SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal ambient temperature (70°F, 21°C) and pressure (1 atm).

CONDITIONS TO AVOID: Avoid storing in direct sunlight and avoid extremes of temperature.

INCOMPATIBLE MATERIALS: Strong oxidizers, acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may release toxic and/or hazardous gases, including ammonia.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION SUMMARY: This product is a personal care or cosmetic product. The use of this product by consumers is safe under normal and reasonable foreseen use. Direct contact with eyes may cause irritation. Repeated or prolonged excessive contact with skin may cause irritation or dermatitis.

COMPONENT ANALYSIS: The following toxicity information is for the hazardous ingredient(s) when used as technical grade and is provided as reference for the occupational settings.

INGREDIENT	LD50 / DRAIZE SCORE	TOXICITY / IRRITATION RATING
ACUTE ORAL TOXICITY		
Cocamidopropyl Betaine	4,900 mg/kg (rat)	Practically Non-hazardous
Sodium Laureth Sulfate	1,600 mg/kg (rat)	Moderately Toxic
Glycerin	12,600 mg/kg (rat)	Non-hazardous
ACUTE DERMAL TOXICITY		
Glycerin	> 10,000 mg/kg (rabbit)	Non-hazardous
ACUTE INHALATION TOXICITY		
Glycerin	> 570 mg/m <sup>3</sup> (rat)	Toxic

SENSITIZATION: This product is not considered a skin or respiratory sensitizer.

CARCINOGENICITY: None of the ingredients in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA).

MUTAGENICITY: None of the ingredients in this product are known to cause mutagenicity.

REPRODUCTIVE/FETAL/DEVELOPMENTAL TOXICITY: None of the ingredients in this product are known as reproductive, fetal, or developmental hazards.

TARGET ORGAN TOXICITY: None of the ingredients in this product are known to have target organ toxicity.

EPIDEMIOLOGICAL INFORMATION: None of the ingredients in this product are known to have health-related information in working populations.

## SECTION 12: ECOLOGICAL INFORMATION

This product is anticipated to be safe for the environment at concentrations predicted in household settings under normal use conditions. The following toxicity information is available for the hazardous ingredient(s) when used as technical grade and is provided as reference for the occupational settings.

PRODUCT / INGREDIENT	LC50/EC50 (ANIMAL SPECIE)	TOXICITY RATING
<b>VERTEBRATES</b>		
Cocamidopropyl Betaine	96-hr LC50: 1 - 10 mg/L (Brachydanio rerio)	Toxic
Glycerin	96-hr LC50: 50 mg/L (Oncorhynchus mykiss)	Harmful
<b>INVERTEBRATES</b>		
Cocamidopropyl Betaine	48-hr EC50: 6.5 mg/L (Daphnia magna)	Toxic
Glycerin	24-hr EC50: > 500 mg/L (Daphnia magna)	Practically Non-Hazardous

**ENVIRONMENTAL FATE:** No environmental fate data exists for the product. The product is anticipated to be rapidly biodegradable.

**PERSISTENCE AND DEGRADABILITY:** The persistence and degradability of this product has not been determined.

**BIOACCUMULATION POTENTIAL:** The bioaccumulation potential of this product has not been determined.

**MOBILITY:** The mobility of this product (in soil and water) has not been determined.

### SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE NUMBER AND DESCRIPTION:** Not applicable, not regulated.

**DISPOSAL CONSIDERATIONS:** This product is not a RCRA hazardous waste and can be disposed of in accordance with federal, state and local regulations.

### SECTION 14: TRANSPORT INFORMATION

#### GROUND TRANSPORT

DOT Hazard Class:	Not regulated	Packing Group:	Not applicable
DOT Proper Shipping Name:	Not applicable	Shipping Label Information:	Not applicable
UN/NA Number:	Not applicable		

#### AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Hazard Class:	Not regulated
ICAO/IATA Proper Shipping Name:	Not applicable

#### MARINE TRANSPORT (IMDG/IMO)

IMDG/IMO Hazard Class:	Not regulated
IMDG/IMO Proper Shipping Name:	Not applicable

### SECTION 15: REGULATORY INFORMATION

#### UNITED STATES:

**OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:**

The Occupational Safety and Health Administration requires Material Safety Data Sheets to provide any hazards that may be associated with the product, and make this information available in the workplace. Since the use pattern and exposure in the workplace are generally not consistent with those experienced by consumers, this MSDS may contain additional health hazard information not pertinent to consumer use.

**FOOD AND DRUG ADMINISTRATION:**

This product is regulated as a cosmetic under the Food and Drug Administration.

**EPA - SARA TITLE III SECTION 313:** Not applicable - Consumer product.

**EPA CERCLA/SARA TITLE III SUPERFUND AMENDMENT AND REAUTHORIZATION ACT:**

This product contains no CERCLA/SARA Title III materials. This product contains no hazardous chemicals reportable under Sections 311/312. This product contains no hazardous chemicals reportable under Section 304.

**TSCA:** All components of this product are either listed on or exempt from the U.S. Toxic Substances Control Act (TSCA) chemical substance inventory.

**STATE REGULATIONS**

CALIFORNIA PROPOSITION 65: This product does not contain substances listed under California Proposition 65.

**CANADA:**

CANADIAN ENVIRONMENTAL PROTECTION ACT:

INVENTORY STATUS: Some components of this product are not listed on the Canadian Domestic Substances List (DSL) nor the NDSL.

HEALTH CANADA:

This product is regulated as a cosmetic product under the Cosmetics Programme.

WORKER HAZARDOUS MATERIALS INFORMATION SYSTEM:

WHMIS CLASSIFICATION: Not subject to classification.

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**SECTION 16: OTHER INFORMATION**

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DISCLAIMER: The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, The Dial Corporation makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, The Dial Corporation will not be responsible for damages of any kind resulting from the use of or reliance upon such information. No representations, or warranties, either expressed or implied of merchantability, fitness for a particular purpose or of any other nature is made hereunder with respect to the information set forth herein or to the product to which the information refers.

NFPA RATINGS (Scale 0-4, where 4=high degree of hazard): HEALTH=1 FLAMMABILITY=0 REACTIVITY=0

HMIS RATINGS (Scale 0-4, where 4=severe hazard): HEALTH=1 FLAMMABILITY=0 REACTIVITY=0

MSDS CREATION DATE: 04/08/02

SUPERCEDES: 07/01/04, Rev. 20

REVISION DATE: 07/23/07

REVISION: 16-Section format.



## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** ULTRA LOW SULFUR DIESEL, UNDYED

**Chemical Name:** Petroleum Hydrocarbon

**Generic Name:** Petroleum Hydrocarbon

**Synonyms:**

On Road Ultra Low Sulfur Diesel

ULSD, Undyed

ULSD B2, Undyed

ULSD B5, Undyed

ULSD, Rochester, Undyed

### 1.2. Intended Use of the Product

Diesel Fuel Oil.

### 1.3. Name, Address, and Telephone of the Responsible Party

**Company**

United Refining Company

15 Bradley Street, P.O.Box 780

Warren, PA 16365

Phone: (814) 723-1500

[www.urb.com](http://www.urb.com)

### 1.4. Emergency Telephone Number

**Emergency Number** : CHEMTREC: (800) 424-9300

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**GHS-US/CA Classification**

Flam. Liq. 3                    H226

Acute Tox. 4                    H332

(Inhalation:dust,mist)

Skin Irrit. 2                    H315

Muta. 1B                        H340

Carc. 1B                         H350

Repr. 2                         H361

STOT RE 2                    H373

Asp. Tox. 1                    H304

Aquatic Acute 3                H402

Aquatic Chronic 2             H411

Full text of hazard classes and H-statements : see Section 16.

### 2.2. Label Elements

**GHS-US/CA Labeling**

**Hazard Pictograms (GHS-US/CA)**



**Signal Word (GHS-US/CA)**

: Danger

**Hazard Statements (GHS-US/CA)**

: H226 - Flammable liquid and vapor.  
 H304 - May be fatal if swallowed and enters airways.  
 H315 - Causes skin irritation.  
 H332 - Harmful if inhaled.

H340 - May cause genetic defects.  
 H350 - May cause cancer.  
 H361 - Suspected of damaging fertility or the unborn child.  
 H373 - May cause damage to organs (thymus, liver, bone marrow) through prolonged or repeated exposure.  
 H402 - Harmful to aquatic life.  
 H411 - Toxic to aquatic life with long lasting effects.

**Precautionary Statements (GHS-US/CA) :** P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P233 - Keep container tightly closed.  
 P240 - Ground/bond container and receiving equipment.  
 P241 - Use explosion-proof electrical, ventilating, and lighting equipment.  
 P242 - Use only non-sparking tools.  
 P243 - Take action to prevent static discharges.  
 P260 - Do not breathe vapors, mist, or spray.  
 P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
 P271 - Use only outdoors or in a well-ventilated area.  
 P273 - Avoid release to the environment.  
 P280 - Wear protective gloves, protective clothing, and eye protection.  
 P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P308+P313 - If exposed or concerned: Get medical advice/attention.  
 P312 - Call a POISON CENTER or doctor if you feel unwell.  
 P314 - Get medical advice/attention if you feel unwell.  
 P321 - Specific treatment (see Section 4 on this SDS).  
 P331 - Do NOT induce vomiting.  
 P332+P313 - If skin irritation occurs: Get medical advice/attention.  
 P362+P364 - Take off contaminated clothing and wash it before reuse.  
 P370+P378 - In case of fire: Use appropriate media (see Section 5) to extinguish.  
 P391 - Collect spillage.  
 P403+P235 - Store in a well-ventilated place. Keep cool.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container in accordance with local, regional, national, provincial, territorial and international regulations.

### 2.3. Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

### 2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Fuels, diesel, no. 2	(CAS No) 68476-34-6	>= 95	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 3, H402

			Aquatic Chronic 2, H411
Soybean oil, methyl ester	(CAS No) 67784-80-9	<= 5	Not classified
Solvent naphtha, petroleum, light aromatic	(CAS No) 64742-95-6	0.075 - 0.15	Flam. Liq. 1, H224 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Solvent naphtha, petroleum, heavy aromatic	(CAS No) 64742-94-5	0.075 - 0.15	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

Full text of H-phrases: see Section 16.

\*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

**Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**Ingestion:** Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes skin irritation. Harmful if inhaled. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.

**Inhalation:** Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness.

**Skin Contact:** Redness, pain, swelling, itching, burning, dryness, and dermatitis.

**Eye Contact:** May cause slight irritation to eyes.

**Ingestion:** The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

**Chronic Symptoms:** May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>). Water may be ineffective but water should be used to keep fire-exposed container cool.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. A heavy water stream may spread burning liquid.

## 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Flammable liquid and vapor.

**Explosion Hazard:** May form flammable or explosive vapor-air mixture.

**Reactivity:** Reacts violently with strong oxidizers. Increased risk of fire or explosion.

## 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. Under fire conditions closed containers may rupture or explode.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product at elevated temperatures.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

## Reference to Other Sections

Refer to Section 9 for flammability properties.

# SECTION 6: ACCIDENTAL RELEASE MEASURES

## 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not get in eyes, on skin, or on clothing. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges. Do not breathe vapor, mist or spray. Avoid all contact with skin, eyes, or clothing.

### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel. Stop leak if safe to do so.

### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Eliminate ignition sources.

## 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

## 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools.

## 6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. See Section 13, Disposal Considerations.

# SECTION 7: HANDLING AND STORAGE

## 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Handle empty containers with care because residual vapors are flammable. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. Hot organic chemical vapors or mists are susceptible to spontaneous combustion when mixed with air, ignition may occur below auto ignition temperature. Ignition temperatures will decrease with increasing vapor volumes, vapor air contact time, and pressure changes. Ignition may occur at elevated-temperature process conditions, especially under a vacuum. Handle in accordance with standard industrial practices, and ensure appropriate ventilation.

**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Do not breathe mist/vapors/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

## 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

**Storage Conditions:** Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers.

### 7.3. Specific End Use(s)

Diesel Fuel Oil.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in Section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Fuels, diesel, no. 2 (68476-34-6)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (inhalable fraction and vapor)
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route, Confirmed Animal Carcinogen with Unknown Relevance to Humans
Alberta	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (aerosol, inhalable, and vapor)
Manitoba	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (inhalable fraction and vapor)
Newfoundland & Labrador	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (inhalable fraction and vapor)
Nova Scotia	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (inhalable fraction and vapor)
Nunavut	OEL STEL (mg/m <sup>3</sup> )	150 mg/m <sup>3</sup> (vapor)
Nunavut	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (vapor)
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	150 mg/m <sup>3</sup> (vapor)
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (vapor)
Ontario	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (inhalable fraction and vapor)
Prince Edward Island	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (inhalable fraction and vapor)
Saskatchewan	OEL STEL (mg/m <sup>3</sup> )	150 mg/m <sup>3</sup> (vapor)
Saskatchewan	OEL TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (vapor)

### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Gas detectors should be used when toxic gases may be released.

**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

**Hand Protection:** Wear protective gloves.

**Eye and Face Protection:** Chemical safety goggles.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Environmental Exposure Controls:** Do not allow the product to be released into the environment.

**Consumer Exposure Controls:** Do not eat, drink or smoke during use

**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Yellow
Odor	: Mild Petroleum Odor
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 340 - 675 °F (171.11 - 357.22 °C)
Flash Point	: 125 °F (51.67 °C)
Auto-ignition Temperature	: 494 °F (256.67 °C)
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: 0.6 %
Upper Flammable Limit	: 7.5 %
Vapor Pressure	: < 5 mm Hg
Relative Vapor Density at 20°C	: Not available
Relative Density	: Not available
Density	: > 1 (Air = 1)
Specific Gravity	: < 0.876
Solubility	: Water: < 0.1 %
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: 1.9 - 4.1 cSt @ 104 ° F (40 °C)
VOC content	: > 99 %

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Reacts violently with strong oxidizers. Increased risk of fire or explosion.
- 10.2. Chemical Stability:** Flammable liquid and vapor. May form flammable or explosive vapor-air mixture.
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.
- 10.5. Incompatible Materials:** Strong acids, strong bases, strong oxidizers.
- 10.6. Hazardous Decomposition Products:** None expected under normal conditions of use.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects – Product

**Acute Toxicity (Oral):** Not classified

**Acute Toxicity (Dermal):** Not classified

**Acute Toxicity (Inhalation):** Inhalation:dust,mist: Harmful if inhaled.

**LD50 and LC50 Data:**

<b>ULTRA LOW SULFUR DIESEL, UNDYED</b>	
<b>ATE US/CA (dust, mist)</b>	3.67 mg/l/4h

**Skin Corrosion/Irritation:** Causes skin irritation.

**Eye Damage/Irritation:** Not classified

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** May cause genetic defects.

**Carcinogenicity:** May cause cancer.

**Specific Target Organ Toxicity (Repeated Exposure):** May cause damage to organs (thymus, liver, bone marrow) through prolonged or repeated exposure.

**Reproductive Toxicity:** Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Symptoms/Injuries After Inhalation:** Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness.

**Symptoms/Injuries After Skin Contact:** Redness, pain, swelling, itching, burning, dryness, and dermatitis.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

**Chronic Symptoms:** May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

## 11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

<b>Fuels, diesel, no. 2 (68476-34-6)</b>	
LD50 Oral Rat	18.7 - 24.9 ml/kg
LD50 Dermal Rabbit	> 4300 mg/kg
LC50 Inhalation Rat	3.6 mg/l/4h
<b>Solvent naphtha, petroleum, light aromatic (64742-95-6)</b>	
LD50 Oral Rat	8400 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	3400 ppm/4h
<b>Solvent naphtha, petroleum, heavy aromatic (64742-94-5)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2 ml/kg
LC50 Inhalation Rat	> 590 mg/m <sup>3</sup> (Exposure time: 4 h)

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General:** Harmful to aquatic life. Toxic to aquatic life with long lasting effects.

<b>Fuels, diesel, no. 2 (68476-34-6)</b>	
LC50 Fish 1	57 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
<b>Solvent naphtha, petroleum, light aromatic (64742-95-6)</b>	
LC50 Fish 1	9.22 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Solvent naphtha, petroleum, heavy aromatic (64742-94-5)</b>	
LC50 Fish 1	19 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	0.95 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	2.34 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

### 12.2. Persistence and Degradability

<b>ULTRA LOW SULFUR DIESEL, UNDYED</b>	
Persistence and Degradability	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative Potential

<b>ULTRA LOW SULFUR DIESEL, UNDYED</b>	
Bioaccumulative Potential	Not established.
<b>Solvent naphtha, petroleum, heavy aromatic (64742-94-5)</b>	
BCF Fish 1	61 - 159
Log Pow	2.9 - 6.1

**12.4. Mobility in Soil**

Not available

**12.5. Other Adverse Effects****Other Information:** Avoid release to the environment.**SECTION 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods****Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, provincial, territorial and international regulations.**Additional Information:** Handle empty containers with care because residual vapors are flammable.**SECTION 14: TRANSPORT INFORMATION**

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

**14.1. In Accordance with DOT**

**Proper Shipping Name** : DIESEL FUEL  
**Hazard Class** : 3  
**Identification Number** : UN1202  
**Label Codes** : 3  
**Packing Group** : III  
**Marine Pollutant** : Marine pollutant  
**ERG Number** : 128

**14.2. In Accordance with IMDG**

**Proper Shipping Name** : DIESEL FUEL  
**Hazard Class** : 3  
**Identification Number** : UN1202  
**Label Codes** : 3  
**Packing Group** : III  
**EmS-No. (Fire)** : F-E  
**EmS-No. (Spillage)** : S-E  
**Marine pollutant** : Marine pollutant

**14.3. In Accordance with IATA**

**Proper Shipping Name** : DIESEL FUEL  
**Identification Number** : 3  
**Hazard Class** : UN1202  
**Label Codes** : 3  
**Packing Group** : III  
**ERG Code (IATA)** : 3L

**14.4. In Accordance with TDG**

**Proper Shipping Name** : DIESEL FUEL  
**Hazard Class** : 3  
**Identification Number** : UN1202  
**Label Codes** : 3  
**Packing Group** : III  
**Marine Pollutant (TDG)** : Marine pollutant

**SECTION 15: REGULATORY INFORMATION****15.1. US Federal Regulations**

<b>ULTRA LOW SULFUR DIESEL, UNDYED</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
<b>Fuels, diesel, no. 2 (68476-34-6)</b>	



Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Soybean oil, methyl ester (67784-80-9)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Solvent naphtha, petroleum, light aromatic (64742-95-6)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Solvent naphtha, petroleum, heavy aromatic (64742-94-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory

**15.2. US State Regulations**

Neither this product nor its chemical components appear on any US state lists.

**15.3. Canadian Regulations**

<b>Fuels, diesel, no. 2 (68476-34-6)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Soybean oil, methyl ester (67784-80-9)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Solvent naphtha, petroleum, light aromatic (64742-95-6)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Solvent naphtha, petroleum, heavy aromatic (64742-94-5)</b>
Listed on the Canadian DSL (Domestic Substances List)

**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**Date of Preparation or Latest Revision** : 09/01/2017

**Revision**

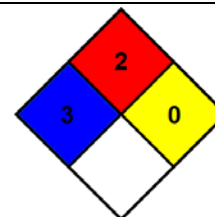
**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

**GHS Full Text Phrases:**

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 3	Flammable liquids Category 3
Muta. 1B	Germ cell mutagenicity Category 1B
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H224	Extremely flammable liquid and vapor
H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H340	May cause genetic defects

H350	May cause cancer
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects

- NFPA Health Hazard** : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.
- NFPA Fire Hazard** : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.
- NFPA Reactivity Hazard** : 0 - Material that in themselves are normally stable, even under fire conditions.



*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

# SAFETY DATA SHEET



Issuing Date: 05-Oct-2015

Revision Date: 05-Oct-2015

Version 1

## 1. IDENTIFICATION

<b>Product Name</b>	Dawn Ultra Dishwashing Liquid, Original Scent
<b>Product ID:</b>	97591965 RET NG
<b>Product Type:</b>	Finished Product - Consumer (Retail) Use Only
<b>Recommended use</b>	Dish Care
<b>Restrictions on Use</b>	Use only as directed on label.
<b>Synonyms</b>	Dawn Ultra Dishwashing Liquid, Pomegranate Awakening (97591967 RET NG) Dawn Ultra Dishwashing Liquid, Apple Orchard Harvest (97591968 RET NG)
<b>Manufacturer</b>	PROCTER GAMBLE - Fabric and Home Care Division Ivorydale Technical Centre 5289 Spring Grove Avenue Cincinnati, Ohio 45217-1087 USA  Procter Gamble Inc. P.O. Box 355, Station A Toronto, ON M5W 1C5 1-800-331-3774
<b>E-mail Address</b>	pgsds.im@pg.com
<b>Emergency Telephone</b>	Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531

## 2. HAZARD IDENTIFICATION

Consumer Products, as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

**This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:**

<b>Hazard Category</b>	
<b>Eye Damage / Irritation</b>	Category 2B
<b>Signal Word</b>	WARNING
<b>Hazard Statements</b>	Causes eye irritation
<b>Hazard pictograms</b>	None

<b>Precautionary Statements - Prevention</b>	Wash hands thoroughly after handling
<b>Precautionary Statements - Response</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF SWALLOWED: Drink 1 or 2 glasses of water
<b>Precautionary Statements - Storage</b>	None
<b>Precautionary Statements - Disposal</b>	None
<b>Hazards not otherwise classified (HNOC)</b>	None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	No	68585-47-7	15 - 20
Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts	Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts	No	68585-34-2	5 - 10
Amine oxides, C10-16-alkyldimethyl	Amine oxides, C10-16-alkyldimethyl	No	70592-80-2	5 - 10
Ethanol	Ethanol	No	64-17-5	1 - 5

### 4. FIRST AID MEASURES

#### First aid measures for different exposure routes

<b>Eye contact</b>	Rinse with plenty of water. Get medical attention immediately if irritation persists.
<b>Skin contact</b>	Rinse with plenty of water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician.
<b>Most important symptoms/effects, acute and delayed</b>	None under normal use conditions.

#### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to Physician</b>	Treat symptomatically.
---------------------------	------------------------

### 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray.
<b>Unsuitable Extinguishing Media</b>	None.
<b>Special hazard</b>	None known.
<b>Special protective equipment for fire-fighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Specific hazards arising from the chemical</b>	None.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Use personal protective equipment. Do not get in eyes, on skin, or on clothing.
<b>Advice for emergency responders</b>	Use personal protective equipment as required.

### Methods and materials for containment and cleaning up

<b>Methods for containment</b>	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
<b>Methods for cleaning up</b>	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Advice on safe handling</b>	Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.
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### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Incompatible products</b>	None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	CAS-No	ACGIH TLV	OSHA PEL	Mexico PEL
Ethanol	64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m <sup>3</sup>	Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m <sup>3</sup>

Chemical Name	CAS-No	Alberta	Quebec	Ontario TWAEV	British Columbia
Ethanol	64-17-5	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	STEL: 1000 ppm	STEL: 1000 ppm

No relevant exposure guidelines for other ingredients

### Exposure controls

**Engineering Measures****Distribution, Workplace and Household Settings:**

Ensure adequate ventilation

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

**Personal Protective Equipment****Eye Protection****Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Use appropriate eye protection

**Hand Protection****Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Protective gloves

**Skin and Body Protection****Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Wear suitable protective clothing

**Respiratory Protection****Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

In case of insufficient ventilation wear suitable respiratory equipment

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical State @20°C**

liquid

**Appearance**

Various color by product

**Odor**

Scented

**Odor threshold**

No information available

**Property****Values****Note****pH value**

9.0 - 9.2

10% aqueous solution

**Melting/freezing point**

No information available

**Boiling point/boiling range**

100 - 104 C / 212 - 219 F

**Flash point**

No Flash to Boiling (NFTB)

**Evaporation rate**

No information available

**Flammability (solid, gas)**

No information available

**Flammability Limits in Air****Upper flammability limit**

No information available

**Lower Flammability Limit**

No information available

**Vapor pressure**

No information available

**Vapor density**

No information available

**Relative density**

1.04

**Water solubility**

100%

**Solubility in other solvents**

No information available

**Partition coefficient: n-octanol/water** No information available**Autoignition temperature**

No information available

**Decomposition temperature**

No information available

**Viscosity of Product** No information available  
**VOC Content (%)** Products comply with US state and federal regulations for VOC content in consumer products.

## 10. STABILITY AND REACTIVITY

**Reactivity** None under normal use conditions.  
**Stability** Stable under normal conditions.  
**Hazardous polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions** None under normal processing.  
**Conditions to Avoid** None under normal processing.  
**Materials to avoid** None in particular.  
**Hazardous Decomposition Products** None under normal use.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

#### Information on likely routes of exposure

**Inhalation** No known effect.  
**Skin contact** No known effect.  
**Ingestion** No known effect.  
**Eye contact** Irritating to eyes.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Acute toxicity** No known effect.  
**Skin corrosion/irritation** No known effect.  
**Serious eye damage/eye irritation** Irritating to eyes.  
**Skin sensitization** No known effect.  
**Respiratory sensitization** No known effect.  
**Germ cell mutagenicity** No known effect.  
**Neurological Effects** No known effect.  
**Reproductive toxicity** No known effect.  
**Developmental toxicity** No known effect.  
**Teratogenicity** No known effect.  
**STOT - single exposure** No known effect.  
**STOT - repeated exposure** No known effect.  
**Target Organ Effects** No known effect.  
**Aspiration hazard** No known effect.  
**Carcinogenicity** No known effect.

### Component Information

Chemical Name	CAS-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts	68585-34-2	2001 mg/kg	-	-

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The product is not expected to be hazardous to the environment.

**Persistence and degradability** No information available.

<b>Bioaccumulative potential</b>	No information available.
<b>Mobility</b>	No information available.
<b>Other adverse effects</b>	No information available.

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment

<b>Waste from Residues / Unused Products</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>California Hazardous Waste Codes (non-household setting)</b>	331

### 14. TRANSPORT INFORMATION

<b>DOT</b>	Not regulated
<b>IMDG</b>	Not regulated
<b>IATA</b>	Not regulated

### 15. REGULATORY INFORMATION

#### U.S. Federal Regulations

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

##### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	CAS-No	Hazardous Substances RQs	Extremely Hazardous Substances RQs	CERCLA/SARA 302 TPQ
Sodium hydroxide	1310-73-2	1000 lb	-	

##### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following substance(s) which are either listed as hazardous air pollutants (HAPS) or VOCs per the Clean Air Act:

Chemical Name	CAS-No	CAA (Clean Air Act) - 1990 Hazardous Air Pollutants
Phenoxyethanol	122-99-6	

##### **Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CAS-No	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide	1310-73-2	1000 lb	-	-	

##### **California Proposition 65**



This product is not subject to warning labeling under California Proposition 65.

### U.S. State Regulations (RTK)

Chemical Name	CAS-No	New Jersey
Ethanol	64-17-5	

Chemical Name	CAS-No	Massachusetts
Ethanol	64-17-5	

Chemical Name	CAS-No	Pennsylvania
Ethanol	64-17-5	
Sodium hydroxide	1310-73-2	
Phenoxyethanol	122-99-6	

### International Inventories

#### United States

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

#### Canada

This product is in compliance with CEPA for import by P G.

#### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**CEPA** - Canadian Environmental Protection Act

## 16. OTHER INFORMATION

**Issuing Date:** 05-Oct-2015

**Revision Date:** 05-Oct-2015

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**

**3M™ Tapes: 3900, 3939, 6969, 2929, 5959, 8979, 8979N, and 390**



## Article Information Sheet

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This Article Information Sheet is provided as a courtesy in response to a customer request. A Safety Data Sheet (SDS) has not been prepared for these product(s) because they are articles. Articles are not subject to the Hazardous Products Act or Regulations. As defined in the act: "Article" means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an individual to be exposed to a hazardous product.

<b>Document group:</b>	26-2650-5	<b>Version number:</b>	1.00
<b>Issue Date:</b>	2016/10/11	<b>Supersedes Date:</b>	Initial Issue

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Tapes: 3900, 3939, 6969, 2929, 5959, 8979, 8979N, and 390

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Bundling, Reinforcing, & Sealing, Industrial use

#### 1.3. Supplier's details

<b>Company:</b>	3M Canada Company
<b>Division:</b>	Industrial Adhesives and Tapes Division
<b>Address:</b>	1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1
<b>Telephone:</b>	(800) 364-3577
<b>Website:</b>	www.3M.ca

#### 1.4. Emergency telephone number

Medical Emergency Telephone: (519) 451-2500, Ext. 2222; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

3M™ Multi-Purpose Duct Tape 3900  
 3M™ Heavy Duty Duct Tape 3939  
 3M™ Extra Heavy Duty Duct Tape 6969  
 3M™ General Use Duct Tape 2929  
 3M™ Outdoor Masking and Stucco Tape 5959  
 3M™ Performance Plus Duct Tape 8979 & 8979N  
 Scotch® Polyethylene Coated Cloth Tape 390

### SECTION 2: Hazard identification

This product is exempt from hazard classification according to the Hazardous Products Act because it meets the manufactured article exemption.

3M™ Tapes: 3900, 3939, 6969, 2929, 5959, 8979, 8979N, and 390

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Polyethylene Film over Cloth Scrim Backing	None	51 - 99
Rubber Adhesive	Trade Secret	1 - 49

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### Inhalation:

No need for first aid is anticipated.

##### Skin Contact:

No need for first aid is anticipated.

##### Eye Contact:

No need for first aid is anticipated.

##### If Swallowed:

No need for first aid is anticipated.

### SECTION 5: Fire-fighting measures

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Not applicable.

#### 6.2. Environmental precautions

Not applicable.

#### 6.3. Methods and material for containment and cleaning up

Not applicable.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

#### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

### SECTION 8: Exposure controls/personal protection

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

3M™ Tapes: 3900, 3939, 6969, 2929, 5959, 8979, 8979N, and 390

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance/Odour	various colored duct tape
Odour threshold	<i>Not Applicable</i>
pH	<i>Not Applicable</i>
Melting point/Freezing point	<i>Not Applicable</i>
Boiling point/Initial boiling point/Boiling range	<i>Not Applicable</i>
Flash Point	<i>Not Applicable</i>
Evaporation rate	<i>Not Applicable</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapour Pressure	<i>Not Applicable</i>
Vapour Density	<i>Not Applicable</i>
Density	<i>Not Applicable</i>
Relative density	<i>Not Applicable</i>
Water solubility	Nil
Solubility- non-water	<i>Not Applicable</i>
Partition coefficient: n-octanol/ water	<i>Not Applicable</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>Not Applicable</i>
Viscosity	<i>Not Applicable</i>
Molecular weight	<i>No Data Available</i>
Volatile Organic Compounds	<i>Not Applicable</i>
Percent volatile	<i>Not Applicable</i>
VOC Less H <sub>2</sub> O & Exempt Solvents	<i>Not Applicable</i>

## SECTION 10: Stability and reactivity

This material is considered to be non reactive under normal use conditions.

## SECTION 11: Toxicological information

### Inhalation:

No health effects are expected

### Skin Contact:

No health effects are expected

### Eye Contact:

No health effects are expected

### Ingestion:

No health effects are expected

### Additional Information:

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

## SECTION 12: Ecological information

**3M™ Tapes: 3900, 3939, 6969, 2929, 5959, 8979, 8979N, and 390**

No data available.

### **SECTION 13: Disposal considerations**

Dispose of contents/container in accordance with the local/regional/national/international regulations.

### **SECTION 14: Transport Information**

Not regulated per U.S. DOT, IATA or IMO.

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original 3M package is certified for Canadian ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.

### **SECTION 15: Regulatory information**

This product is an article as defined by CEPA and is exempt from DSL inventory listing.

### **SECTION 16: Other information**

**National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.**

**Health: 0 Flammability: 1 Instability: 0 Special Hazards: None**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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**3M Canada SDSs are available at [www.3M.ca](http://www.3M.ca)**

# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	PRO +LSPR 6PK FLAT GRAY PRIMER	<b>Revision Date:</b>	5/19/2017
<b>Product Identifier:</b>	7582838	<b>Supersedes Date:</b>	2/10/2017
<b>Product Use/Class:</b>	Primer/Aerosols		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### Possible Hazards

34% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

### GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.

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P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P264	Wash hands thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P272	Contaminated work clothing should not be allowed out of the workplace.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	For specific treatment see label

**GHS SDS PRECAUTIONARY STATEMENTS**

P363 Wash contaminated clothing before reuse.

### 3. Composition/Information On Ingredients

**HAZARDOUS SUBSTANCES**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.% Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Propane	74-98-6	10-25	GHS04	H280
n-Butyl Acetate	123-86-4	10-25	GHS02-GHS07	H226-336
Acetone	67-64-1	10-25	GHS02-GHS07	H225-319-332-336
Dimethyl Carbonate	616-38-6	2.5-10	GHS02	H225
n-Butane	106-97-8	2.5-10	GHS04	H280
Talc (Hydrous Magnesium Silicate)	14807-96-6	2.5-10	Not Available	Not Available
Titanium Dioxide	13463-67-7	2.5-10	Not Available	Not Available
Hydrotreated Light Distillate	64742-47-8	2.5-10	GHS08	H304
Solvent Naphtha, Light Aromatic	64742-95-6	2.5-10	GHS07-GHS08	H304-332
Zinc Phosphate	7779-90-0	1.0-2.5	Not Available	Not Available
Methyl Ethyl Ketoxime	96-29-7	0.1-1.0	GHS05-GHS06	H302-312-317-318-331
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07- GHS08	H225-304-332-351-373

### 4. First-aid Measures

**FIRST AID - EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

**FIRST AID - SKIN CONTACT:** Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

**FIRST AID - INHALATION:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation.

**FIRST AID - INGESTION:** Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

## 5. Fire-fighting Measures

**EXTINGUISHING MEDIA:** Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. Closed containers may explode when exposed to extreme heat due to buildup of steam. No unusual fire or explosion hazards noted.

**SPECIAL FIREFIGHTING PROCEDURES:** Evacuate area and fight fire from a safe distance. Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

## 6. Accidental Release Measures

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

## 7. Handling and Storage

**HANDLING:** Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.

**STORAGE:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Contents under pressure. Do not expose to heat or store above 120 ° F. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

## 8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL- TWA	OSHA PEL- CEILING
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	15.0	50 ppm	150 ppm	150 ppm	N.E.
Acetone	67-64-1	15.0	250 ppm	500 ppm	1000 ppm	N.E.
Dimethyl Carbonate	616-38-6	10.0	N.E.	N.E.	N.E.	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Talc (Hydrous Magnesium Silicate)	14807-96-6	10.0	2 mg/m3	N.E.	N.E.	N.E.
Titanium Dioxide	13463-67-7	10.0	10 mg/m3	N.E.	15 mg/m3	N.E.
Hydrotreated Light Distillate	64742-47-8	5.0	N.E.	N.E.	N.E.	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	5.0	N.E.	N.E.	N.E.	N.E.
Zinc Phosphate	7779-90-0	5.0	N.E.	N.E.	N.E.	N.E.
Methyl Ethyl Ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits.

**RESPIRATORY PROTECTION:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.



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**SKIN PROTECTION:** Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection. Use gloves to prevent prolonged skin contact.

**EYE PROTECTION:** Use safety eyewear designed to protect against splash of liquids.

**OTHER PROTECTIVE EQUIPMENT:** Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application. Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

**HYGIENIC PRACTICES:** Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Aerosolized Mist	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	0.886	<b>pH:</b>	N.A.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Slight	<b>Partition Coefficient, n-octanol/water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	1.0 - 13.0
<b>Boiling Range, °C:</b>	-37 - 537	<b>Flash Point, °C:</b>	-96
<b>Flammability:</b>	Supports Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Faster than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition. Avoid contact with strong acid and strong bases.

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalies.

**HAZARDOUS DECOMPOSITION:** By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## 11. Toxicological information

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Causes Serious Eye Irritation

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. May cause skin irritation. Allergic reactions are possible.

**EFFECTS OF OVEREXPOSURE - INHALATION:** Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Aspiration hazard if swallowed; can enter lungs and cause damage. Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010) May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage.

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat

123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
616-38-6	Dimethyl Carbonate	13000 mg/kg Rat	>5000 mg/kg Rabbit	140 mg/L Rat
106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
14807-96-6	Talc (Hydrous Magnesium Silicate)	6000	N.I.	30
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.I.
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.I.
7779-90-0	Zinc Phosphate	>5000 mg/kg Rat	N.I.	N.I.
96-29-7	Methyl Ethyl Ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

N.I. - No Information

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components. Product is a mixture of listed components.

## 13. Disposal Information

**DISPOSAL INFORMATION:** Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

## 14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
<b>UN Number:</b>	N.A.	1950	1950	N.A.
<b>Proper Shipping Name:</b>	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
<b>Hazard Class:</b>	N.A.	2.1	2.1	N.A.
<b>Packing Group:</b>	N.A.	N.A.	N.A.	N.A.
<b>Limited Quantity:</b>	Yes	Yes	Yes	Yes

## 15. Regulatory Information

### U.S. Federal Regulations:

#### CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

#### Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Dimethyl Carbonate	616-38-6
Zinc Phosphate	7779-90-0
Ethylbenzene	100-41-4

#### Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

Date Printed: 5/19/2017

No TSCA 12(b) components exist in this product.

**16. Other Information****HMIS RATINGS****Health:** 2\*      **Flammability:** 4      **Physical Hazard:** 0      **Personal Protection:** X**NFPA RATINGS****Health:** 2      **Flammability:** 4      **Instability:** 0**VOLATILE ORGANIC COMPOUNDS, g/L:** 563**SDS REVISION DATE:** 5/19/2017**REASON FOR REVISION:** Regulatory Formula Source Changed  
Product Composition Changed  
Substance and/or Product Properties Changed in Section(s):  
02 - Hazard Identification  
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.



## SAFETY DATA SHEET

**METACAULK® 1000**

Intumescent, water-based firestop sealant

## SECTION 1 – PRODUCT AND COMPANY INFORMATION

## Product Name

Metacaulk® 1000 Intumescent Firestop Sealant

## Product Codes

66640, 66242, 66302, 66303, 66305, 66307, 66309, 66312

## Chemical Family

Organic/Inorganic

## Use

Firestopping sealant

## Manufacturer's Name

The RectorSeal Corporation  
 2601 Spenwick Drive  
 Houston, Texas 77055 USA

## Date of Validation

August 21, 2017

## Date of Preparation

August 21, 2017

## HMIS Codes

Health	1
Flammability	0
Reactivity	0
PPI	B

## Emergency Telephone No.

Chemtrec 24 Hours  
 (800)-424-9300 USA  
 (703)-527-3887 International

## Technical Service Telephone No.

(800)-231-3345 or (713)-263-8001

## SECTION 2 – HAZARDS IDENTIFICATION

**GHS CLASSIFICATION****Physical Hazards:**

None

**Health Hazards**

## Acute Toxicity:

Oral: Not Classified  
 Dermal: Not Classified  
 Inhalation: Not Classified  
 Skin Corrosion/Irritation: Not Classified  
 Serious Eye Damage/Eye Irritation: Not Classified  
 Respiratory or Skin Sensitization: Not Classified  
 Germ Cell Mutagenicity: Not Classified  
 Carcinogenicity: Not Classified  
 Reproductive Toxicology: Not Classified

Target Organ Systemic Toxicity - Single Exposure: Not Classified  
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified

Aspiration Toxicity: Not Classified

### **ENVIRONMENTAL HAZARDS**

Hazardous to the Aquatic Environment: Not Classified  
Acute aquatic toxicity: Not Classified  
Chronic aquatic toxicity: Not Classified  
Bioaccumulation potential: Not Classified  
Rapid degradability: Not Classified

### **GHS Label elements, including precautionary statements**

Pictogram: None

Signal Word: None

Hazard Statements:

None

Precautionary Statements:

P102 - Keep out of reach of children.  
P264 - Wash hands thoroughly after handling.

### **Classification according to EU Directives 67/548/EEC or 1999/45/EC**

LABELING SYMBOLS: None

RISK R-PHRASES: None

SAFETY S-PHRASES:

S2: Keep out of the reach of children.

### **Summary Of Acute Hazards**

May cause skin irritation.

### **Route Of Exposure, Signs And Symptoms**

**INHALATION**

Not a respiratory irritant.

**EYE CONTACT**

Contact may cause eye irritation.

**SKIN CONTACT**

Contact may cause skin irritation.

**INGESTION**

Possible irritation to mucous membranes of the mouth, throat, and stomach.

**SUMMARY OF CHRONIC HAZARDS**

None known.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

Persons with pre-existing skin conditions or chemical allergies may be more susceptible to contact effects of the cured elastomer.

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS
None as defined by OSHA Hazard Communication Standard 29 CFR 1910.1200.			

## SECTION 4 – FIRST AID MEASURES

If inhaled: Not a respiratory irritant.

If on skin: Wash with soap and water. If irritation occurs, seek medical attention.

If in eyes: Immediately flush with large amounts of water. If irritation occurs, seek medical attention.

If swallowed: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

## SECTION 5 – FIRE FIGHTING MEASURES

**Extinguishing Media**

Foam, dry chemical, carbon dioxide or water fog.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10).

**Unusual Fire And Explosion Hazards:** Heat may build up and rupture closed containers.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken In Case Material Is Released Or Spilled:** Wipe up spills to prevent footing hazard. Avoid flushing into sewers, drains, waterways and soil. Wear protective clothing during clean up.

## SECTION 7 – HANDLING AND STORAGE

**Precautions To Be Taken In Handling And Storing:** Keep container closed and upright when not in use. To prevent freezing and possible rupture of container, do not store below 35°F.

**Other Precautions:** Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues and vapors; treat as if full and observe all product precautions. Do not reuse empty containers.

KEEP OUT OF REACH OF CHILDREN.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiratory Protection (Specify Type):** None required.

**Ventilation – Local Exhaust:** N/A

**Special:** N/A

**Mechanical (General):** N/A

**Other:** N/A

**Protective Gloves:** None required.

**Eye Protection:** None required.

**Other Protective Clothing Or Equipment:** None required.

**Work/Hygienic Practices:** Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling point:	212°F (100°C) @ 760mm Hg
Specific gravity (H <sub>2</sub> O = 1):	1.25
Vapor pressure (mmHg):	17 @ 68°F (20°C)
Melting point:	N/A
Vapor Density (Air = 1):	N/A
Evaporation rate (Ethyl Acetate = 1):	> 1
Appearance/Odor:	Red paste/Mild odor
Solubility in water:	Soluble
Volatile Organic Compounds (VOC) Content (theoretical percentage by weight):	< 1% or (< 10 g/L)
Flash point:	None
Lower explosion limit:	None
Upper explosion limit:	None

## SECTION 10 – STABILITY AND REACTIVITY

**Stability:** Stable

**Conditions To Avoid:** None.

**Incompatibility (Materials To Avoid):** None known.

**Hazardous Decomposition Products:** CO, CO<sub>2</sub> and fragmented hydrocarbons.

**Hazardous Polymerization:** Will not occur.

## SECTION 11 – TOXICOLOGY INFORMATION

**Chronic Health Hazards**

No ingredient in this product is an IARC, NTP or OSHA Lister carcinogen.

Toxicology Data

Ingredient Name

**None**

## SECTION 12 – ECOLOGICAL INFORMATION

**Ecological Data**

Ingredient Name:	<b>None</b>
Food Chain Concentration Potential:	N/A
Waterfowl Toxicity:	N/A
BOD:	N/A
Aquatic Toxicity:	N/A

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste Classification:** Non-regulated solid waste

**Disposal Method:** Approved landfill

Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with federal, state, and local regulation regarding pollution.

## SECTION 14 – TRANSPORTATION INFORMATION

DOT:	Non-regulated
Ocean (IMDG):	Non-regulated
Air (IATA):	Non-regulated
WHMIS (Canada):	Non-regulated



## SECTION 15 – REGULATORY INFORMATION

**Regulatory Data**

Ingredient Name:	<b>None</b>
SARA 313	N/A
TSCA Inventory	All components listed
CERCLA RQ	N/A
RCRA Code	N/A

## SECTION 16 – OTHER INFORMATION

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made.

Consult RectorSeal for further information: (713) 263-8001



## Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard ( 29CFR 1910.1200)

**Product name** PYRO-CHEM ABC Multipurpose Dry Chemical Stored Pressure Extinguisher

### 1. Identification

#### 1.1. Product Identifier

**Product name** PYRO-CHEM ABC Multipurpose Dry Chemical Stored Pressure Extinguisher

#### 1.2. Other means of identification

**Product code** 074011  
**UN/ID no** UN1044  
**Synonyms** None  
**Chemical Family** No information available

#### 1.3. Recommended use of the chemical and restrictions on use

**Recommended use** No information available  
**Uses advised against** Consumer use

#### 1.4. Details of the Supplier of the Safety Data Sheet

**Company Name** Tyco Fire Protection Products  
 One Stanton Street  
 Marinette, WI 54143-2542  
 Telephone: 715-735-7411

**Contact point** Product Stewardship at 1-715-735-7411  
**E-mail address** psra@tycofp.com

#### 1.5. Emergency Telephone Number

**Emergency telephone** CHEMTREC 800-424-9300 or 703-527-3887

### 2. Hazards Identification

#### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Gases Under Pressure - Compressed Gas

#### 2.2. Label Elements

**Signal Word**  
 WARNING

#### hazard statements

Contains gas under pressure; may explode if heated





Product code 074011

 / **Product name** PYRO-CHEM /  
 ABC Multipurpose Dry Chemical  
 Stored Pressure Extinguisher

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### Precautionary Statements

#### Storage

Protect from sunlight. Store in a well-ventilated place.

### 2.3. Hazards Not Otherwise Classified (HNOC)

Not Applicable.

### 2.4. OTHER INFORMATION

Unknown Acute Toxicity 5.6208% of the mixture consists of ingredient(s) of unknown toxicity

## 3. Composition/information on Ingredients

### 3.1. Mixture

The following component(s) in this product are considered hazardous under applicable OSHA(USA)

Chemical name	CAS No	weight-%
Ammonium sulfate, technical	7783-20-2	7 - 13
Attapulgate	12174-11-7	1 - 5
Calcium carbonate	471-34-1	1 - 5

## 4. First aid measures

### 4.1. Description of first aid measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
<b>Skin contact</b>	Wash skin with soap and water. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
<b>Ingestion</b>	If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell.

### 4.2. Most Important Symptoms and Effects, Both Acute and Delayed

**Symptoms** None known.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

**Note to physicians** Treat symptomatically.

## 5. Fire-fighting measures

### 5.1. Suitable Extinguishing Media

Product is extinguishing agent. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.



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 Stored Pressure Extinguisher

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**5.2. Unsuitable Extinguishing Media**

None.

**5.3. Specific Hazards Arising from the Chemical**

Containers may explode when heated. Ruptured cylinders may rocket.

**5.4. Explosion Data****Sensitivity to Mechanical Impact** None.**Sensitivity to Static Discharge** None.**5.5. Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****Personal Precautions** Provide adequate ventilation. Avoid creating dust. Avoid breathing dust/fume/gas/mist/vapors/spray.**For emergency responders** Use personal protection recommended in Section 8.**6.2. Environmental Precautions****Environmental Precautions** See Section 12 for additional Ecological Information.**6.3. Methods and material for containment and cleaning up****Methods for Containment** Stop leak if you can do it without risk. If sweeping of a contaminated area is necessary use a dust suppressing agent which does not react with product.**Methods for Cleaning Up** Clean up material with vacuum equipped with HEPA filter. Use water as dust suppressant if necessary. Following product recovery, flush area with water.**7. Handling and Storage****7.1. Precautions for Safe Handling****Advice on safe handling** Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. Use personal protective equipment as required. Wash thoroughly after handling.

Do not drag, slide or roll extinguishers. Do not drop extinguishers or permit them to strike against each other. Refer to NFPA-10 Standard for Portable Fire Extinguishers and OSHA 1910.157 Portable Extinguishers regarding requirements for inspection, maintenance and training.

**7.2. Conditions for safe storage, including any incompatibilities****Storage Conditions** Store in a well-ventilated place. Keep cool. Keep container tightly closed. Guard against dust accumulation of material. Use care in handling/storage. Pressurized extinguishers should be properly stored and secured to prevent falling or being knocked over.



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**Incompatible Materials** Strong acids.

## 8. Exposure Controls/Personal Protection

### 8.1. Control Parameters

#### Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Attapulgit 12174-11-7	TWA: 1 mg/m <sup>3</sup> respirable fraction	-	-
Calcium carbonate 471-34-1	-	-	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor): NIOSH IDLH Immediately Dangerous to Life or Health

### 8.2. Appropriate Engineering Controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### 8.3. Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Wear safety glasses with side shields (or goggles).

**Skin and Body Protection** No special precautions are needed in handling this material.

**Respiratory Protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**Ventilation** Use local exhaust or general dilution ventilation to control exposure with applicable limits

### 8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Physical State</b>	powder	<b>Color</b>	Yellow
<b>Odor</b>	odorless		
<b>odor threshold</b>	No data available		

<u>Property</u>	<u>VALUES</u>	<u>Remarks • Method</u>
pH	No data available	
Melting point/freezing point	No data available	
Boiling point / boiling range	No data available	
Flash Point	No data available	
Evaporation Rate	No data available	
flammability (solid, gas)	No data available	
Flammability limit in air	No data available	



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<b>Upper flammability limit:</b>	No data available
<b>Lower flammability limit:</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific gravity</b>	No data available
<b>Water Solubility</b>	No data available
<b>Solubility in Other Solvents</b>	No data available
<b>Partition coefficient</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Kinematic viscosity</b>	No data available

## 10. Stability and Reactivity

### 10.1. Chemical Stability

Stable under recommended storage conditions.

### 10.2. Reactivity

No data available

### 10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

**hazardous polymerization** Hazardous polymerization does not occur.

### 10.4. Conditions to Avoid

None known based on information supplied.

### 10.5. Incompatible Materials

Strong acids.

### 10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx).

## 11. Toxicological Information

### 11.1. Information on Likely Routes of Exposure

#### Product information

<b>INHALATION</b>	May cause irritation of respiratory tract.
<b>Eye Contact</b>	May cause irritation.
<b>Skin contact</b>	May cause irritation.

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**INGESTION**

Ingestion may cause irritation to mucous membranes.

**Acute Toxicity**

Chemical name	Oral LD50	dermal LD50	Inhalation LC50
Ammonium sulfate, technical 7783-20-2	= 2000 mg/kg ( Rat )	-	-
Calcium carbonate 471-34-1	= 6450 mg/kg ( Rat )	-	-

**11.2. Information on Toxicological Effects****Symptoms** No information available.**11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure****sensitization** No information available.**Germ Cell Mutagenicity** No information available

**carcinogenicity** Attapulgit (palygorskite fibers) is a hydrated magnesium aluminum silicate. Long palygorskite (attapulgit) fibers ( 5 micrometers) are possibly carcinogenic to humans (Group 2B). Short palygorskite (attapulgit) fibers (<5 micrometers) cannot be classified as to their carcinogenicity to humans (Group 3). The attapulgit present in this product contains fibers 0.5-2.5 um range, so would be considered by IARC as Group 3.

Chemical name	ACGIH	IARC	NTP	OSHA
Attapulgit 12174-11-7	-	Group 3	-	-

IARC (International Agency for Research on Cancer)

Not classifiable as a human carcinogen

**Reproductive Toxicity** No information available.**STOT - Single Exposure** No information available.**STOT - Repeated Exposure** No information available.**Target organ effects** EYES, Respiratory System, skin.**Aspiration Hazard** No information available.**11.4. Numerical Measures of Toxicity - Product information**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 16260 mg/kg

ATEmix (dermal) 9942 mg/kg

**12. Ecological Information****12.1. ecotoxicity**

Not classified

0.03348% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea



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Ammonium sulfate, technical 7783-20-2	-	LC50 96 h 460 - 1000 mg/L Leuciscus idus static; LC50 96 h 123 - 128 mg/L Poecilia reticulata semi-static; LC50 96 h = 126 mg/L Poecilia reticulata; LC50 96 h 100 mg/L Pimephales promelas; LC50 96 h 32.2 - 41.9 mg/L Oncorhynchus mykiss flow-through; LC50 96 h 5.2 - 8.2 mg/L Oncorhynchus mykiss static; LC50 96 h = 18 mg/L Cyprinus carpio; LC50 96 h = 480 mg/L Brachydanio rerio flow-through; LC50 96 h = 420 mg/L Brachydanio rerio semi-static; LC50 96 h = 250 mg/L Brachydanio rerio	LC50 48 h = 14 mg/L Daphnia magna; EC50 24 h = 423 mg/L Daphnia magna
Silicic Acid/silica gel, Amorphous 7631-86-9	EC50 72 h = 440 mg/L Pseudokirchneriella subcapitata	LC50 96 h = 5000 mg/L Brachydanio rerio static	EC50 48 h = 7600 mg/L Ceriodaphnia dubia

**12.2. Persistence and Degradability**

No information available.

**12.3. Bioaccumulation**

No information available.

Chemical name	Partition coefficient
Ammonium sulfate, technical 7783-20-2	-5.1

**12.4. Other Adverse Effects**

No information available

**13. Disposal Considerations****13.1. Waste Treatment Methods****Disposal of wastes**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Do not reuse container. Pressurized container: Do not pierce or burn, even after use.

**14. Transport Information****DOT**

UN/ID no	UN1044
Description	UN1044, Fire extinguishers, 2.2
Proper Shipping Name	Fire extinguishers

Revision date 25-May-2015

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**Hazard class** 2.2  
**Special Provisions** 18, 110  
**Emergency Response Guide Number** 126
**TDG**
**UN/ID no** UN1044  
**Description** UN1044, Fire extinguishers, 2.2  
**Proper Shipping Name** Fire extinguishers  
**Hazard class** 2.2
**MEX**
**UN/ID no** UN1044  
**Description** UN1044, Fire extinguishers, 2.2  
**Proper Shipping Name** Fire extinguishers  
**Hazard class** 2.2
**ICAO (air)**
**UN/ID no** UN1044  
**Description** UN1044, Fire extinguishers, 2.2  
**Proper Shipping Name** Fire extinguishers  
**Hazard class** 2.2  
**Special Provisions** A19
**IATA**
**UN/ID no** UN1044  
**Description** UN1044, Fire extinguishers, 2.2  
**Proper Shipping Name** Fire extinguishers  
**Hazard class** 2.2  
**ERG Code** 2L  
**Special Provisions** A19
**IMDG**
**UN/ID no** UN1044  
**Description** UN1044, Fire extinguishers, 2.2  
**Proper Shipping Name** Fire extinguishers  
**Hazard class** 2.2  
**EmS-No** F-C, S-V  
**Special Provisions** 225

## 15. Regulatory Information

### 15.1. International Inventories

TSCA	Complies
DSL/NDSL	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Does not comply
PICCS	Complies
AICS	Complies

**Legend:**



Product code 074011

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**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

## 15.2. US Federal Regulations

### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Ammonium dihydrogen phosphate - 7722-76-1	1.0
Ammonium sulfate, technical - 7783-20-2	1.0

### SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic health hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	No

### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

## 15.3. US State Regulations

### California Proposition 65

Classification only applies to Attapulgite with fibers  $\geq 5$  um. This product contains Attapulgite with fibers  $<5$  um.

Chemical name	California Proposition 65
Attapulgite - 12174-11-7	Carcinogen
Quartz - 14808-60-7	Carcinogen

### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Silicic Acid/silica gel, Amorphous 7631-86-9			
Magnesium carbonate 546-93-0			-
Quartz 14808-60-7			

## 16. Other information, including date of preparation of the last revision

Revision date 25-May-2015

Version 25



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 Stored Pressure Extinguisher

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<b><u>NFPA</u></b>	<b>Health Hazards</b> 0	<b>flammability</b> 0	<b>Instability</b> 0	<b>Physical and chemical properties - Personal Protection</b>
<b><u>HMIS</u></b>	<b>Health Hazards</b> 0	<b>flammability</b> 0	<b>Physical Hazards</b> 3	

**Revision date** 25-May-2015**Revision note**

No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

## 1. Identification

<b>Product identifier</b>	<b>Oatey No. 5 Paste Flux</b>	
<b>Other means of identification</b>		
<b>SDS number</b>	1610E	
<b>Synonyms</b>	Part Numbers: No 5- 30011, 30013, 30014, 30038, 30041, 48307, 48420, 48421, 48422, 48423, 53017, 53060, 53200, Hot Weather- 30062	
<b>Recommended use</b>	Joining Copper Pipes. Joining Copper Tubing.	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Company Name</b>	Oatey Co.	
<b>Address</b>	4700 West 160th St. Cleveland, OH 44135	
<b>Telephone</b>	216-267-7100	
<b>E-mail</b>	info@oatey.com	
<b>Transport Emergency</b>	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)	
<b>Emergency First Aid</b>	1-877-740-5015	
<b>Contact person</b>	MSDS Coordinator	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Causes severe skin burns and eye damage.
<b>Precautionary statement</b>	
<b>Prevention</b>	Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dusts or mists.
<b>Response</b>	If swallowed: Rinse mouth. Do not induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	Not applicable.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
Petrolatum	8009-03-8	60-100

inc chloride	7646-85-7	10-30	229
Water	7732-18-5	3-7	
Ammonium chloride	12125-02-9	1-5	

#### 4. First-aid measures

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Call a physician or poison control center immediately. Remove contact lenses, if present and easy to do.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike far ahead of spill for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Petrolatum (CAS 8009-03-8)	PEL	5 mg/m <sup>3</sup>	Mist.
inc chloride (CAS 7646-85-7)	PEL	1 mg/m <sup>3</sup>	Fume.

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ammonium chloride (CAS 12125-02-9)	STEL	20 mg/m <sup>3</sup>	Fume.
	TWA	10 mg/m <sup>3</sup>	Fume.
Petrolatum (CAS 8009-03-8)	TWA	5 mg/m <sup>3</sup>	Inhalable fraction.
inc chloride (CAS 7646-85-7)	STEL	2 mg/m <sup>3</sup>	Fume.
	TWA	1 mg/m <sup>3</sup>	Fume.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Ammonium chloride (CAS 12125-02-9)	STEL	20 mg/m <sup>3</sup>	Fume.
	TWA	10 mg/m <sup>3</sup>	Fume.
Petrolatum (CAS 8009-03-8)	STEL	10 mg/m <sup>3</sup>	Mist.
	TWA	5 mg/m <sup>3</sup>	Mist.
inc chloride (CAS 7646-85-7)	STEL	2 mg/m <sup>3</sup>	Fume.
	TWA	1 mg/m <sup>3</sup>	Fume.

#### Biological limit values

No biological exposure limits noted for the ingredient(s).

#### Exposure guidelines

Occupational Exposure Limits are not relevant to the current physical form of the product.

#### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

##### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves.

##### Other

Wear appropriate chemical resistant clothing.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

##### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

#### General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Solid.

#### Form

Solid. Paste.

#### Color

Not available.

#### Odor

Not available.

#### Odor threshold

Not available.

#### pH

Not available.

<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	638 F (336.67 C)
<b>Flash point</b>	540.0 F (282.2 C)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	1
<b>Relative density</b>	1.1
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	20000 - 40000 cP
<b>Other information</b>	
<b>VOC (Weight %)</b>	29 g/l 3% by weight

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

### Information on toxicological effects

<b>Acute toxicity</b>	Not available.
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.

### Respiratory or skin sensitization

<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. 232

**Carcinogenicity** None known.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Petrolatum (CAS 8009-03-8)

3 Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not available.

**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

**US federal regulations** This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.



Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Ammonium chloride (CAS 12125-02-9)	LISTED
inc chloride (CAS 7646-85-7)	LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<b>Hazard categories</b>	Immediate Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
inc chloride	7646-85-7	10-30
Ammonium chloride	12125-02-9	1-5

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****US. Massachusetts RTK - Substance List**

Ammonium chloride (CAS 12125-02-9)  
 Petrolatum (CAS 8009-03-8)  
 inc chloride (CAS 7646-85-7)

**US. New Jersey Worker and Community Right-to-Know Act**

Ammonium chloride (CAS 12125-02-9)  
 Petrolatum (CAS 8009-03-8)  
 inc chloride (CAS 7646-85-7)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Ammonium chloride (CAS 12125-02-9)  
 Petrolatum (CAS 8009-03-8)  
 inc chloride (CAS 7646-85-7)

**US. Rhode Island RTK**

Ammonium chloride (CAS 12125-02-9)  
 inc chloride (CAS 7646-85-7)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
apan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
New ealand	New ealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 26-October-2014

**Revision date** 19-February-2015

**Version #** 03

**HMIS® ratings**  
 Health: 3  
 Flammability: 0  
 Physical hazard: 0

**Disclaimer** The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for use, handling, storage and disposal of the product, and to assume liability for loss, in ury, damage or expense due to improper use.



# SAFETY DATA SHEET

## THE DOW CHEMICAL COMPANY

**Product name:** GREAT STUFF™ Big Gap Filler Insulating Foam Sealant 12oz HC ES STW 12ct

**Issue Date:** 01/19/2016

**Print Date:** 06/16/2016

THE DOW CHEMICAL COMPANY encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

### 1. IDENTIFICATION

**Product name:** GREAT STUFF™ Big Gap Filler Insulating Foam Sealant 12oz HC ES STW 12ct

**Recommended use of the chemical and restrictions on use**

**Identified uses:** Polyurethane foam.

**COMPANY IDENTIFICATION**

THE DOW CHEMICAL COMPANY  
2030 WILLARD H DOW CENTER  
MIDLAND MI 48674-0000  
UNITED STATES

**Customer Information Number:**

800-258-2436  
SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** CHEMTREC +1 800-424-9300

**Local Emergency Contact:** 800-424-9300

### 2. HAZARDS IDENTIFICATION

**Hazard classification**

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Flammable aerosols - Category 2

Gases under pressure - Liquefied gas

Skin irritation - Category 2

Eye irritation - Category 2B

Respiratory sensitisation - Category 1

Skin sensitisation - Category 1

Effects on or via lactation

Specific target organ toxicity - single exposure - Category 3

Specific target organ toxicity - repeated exposure - Category 2 - Inhalation

**Label elements**

**Hazard pictograms**



Signal word: **DANGER!**

**Hazards**

- Flammable aerosol.
- Contains gas under pressure; may explode if heated.
- Causes skin and eye irritation.
- May cause an allergic skin reaction.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause respiratory irritation.
- May cause harm to breast-fed children.
- May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

**Precautionary statements**

**Prevention**

- Obtain special instructions before use.
- Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- Do not spray on an open flame or other ignition source.
- Pressurized container: Do not pierce or burn, even after use.
- Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
- Avoid contact during pregnancy/ while nursing.
- Wash skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves.
- In case of inadequate ventilation wear respiratory protection.

**Response**

- IF ON SKIN: Wash with plenty of soap and water.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF exposed or concerned: Get medical advice/ attention.
- If skin irritation or rash occurs: Get medical advice/ attention.
- If eye irritation persists: Get medical advice/ attention.
- Take off contaminated clothing and wash before reuse.

**Storage**

- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.
- Protect from sunlight. Do not expose to temperatures exceeding 50 C/ 122 F.

**Disposal**

- Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

No data available

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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**Chemical nature:** Polyurethane prepolymer

This product is a mixture.

<b>Component</b>	<b>CASRN</b>	<b>Concentration</b>
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9	= 10.0 - <= 30.0 %
Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer	57029-46-6	= 30.0 - <= 60.0 %
Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer	53862-89-8	= 10.0 - <= 30.0 %
Tris(1-chloro-2-propyl) phosphate	13674-84-5	= 5.0 - <= 10.0 %
Paraffin waxes and Hydrocarbon waxes, chlorinated	63449-39-8	= 5.0 - <= 10.0 %
Isobutane	75-28-5	= 5.0 - <= 10.0 %
Methyl ether	115-10-6	= 1.0 - <= 5.0 %
Propane	74-98-6	= 1.0 - <= 5.0 %
4,4 -Methylenediphenyl diisocyanate	101-68-8	= 5.0 - <= 10.0 %

*Note*

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.

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**4. FIRST AID MEASURES**

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**Description of first aid measures**

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

**Skin contact:** Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

**Eye contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome). Repeated excessive exposure may aggravate preexisting lung disease. Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Although cholinesterase depression has been reported with this material, it is not of benefit in determining exposure and need not be considered in the treatment of persons exposed to the material. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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## **5. FIREFIGHTING MEASURES**

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**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Unsuitable extinguishing media:** Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Hydrogen cyanide.

**Unusual Fire and Explosion Hazards:** Contains flammable propellant. Aerosol cans exposed to fire can rupture and become flaming projectiles. Propellant release may result in a fireball. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flashback may occur. Dense smoke is produced when product burns.

**Advice for firefighters**

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water may not be effective in extinguishing fire. Do not use direct water stream. May spread fire. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

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## **6. ACCIDENTAL RELEASE MEASURES**

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**Personal precautions, protective equipment and emergency procedures:** Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep personnel out of low areas. Keep personnel out of confined or poorly ventilated areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. For large spills, warn public of downwind explosion hazard. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Confined space entry procedures must be followed before entering the area. Refer to section 7, Handling, for additional precautionary measures.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Ground and bond all containers and handling equipment. Isolate area until gas has dispersed. Use non-sparking tools in cleanup operations. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Collect in suitable and properly labeled containers. Absorb with materials such as: Clay. Dirt. Milsorb. Sand. Sawdust. Vermiculite. See Section 10 for more specific information. See Section 13, Disposal Considerations, for additional information.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Keep away from heat, sparks and flame. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. No smoking, open flames or sources of ignition in handling and storage area. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Contents under pressure. Do not puncture or incinerate container. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Do not enter confined spaces unless adequately ventilated. Never use air pressure for transferring product. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. See Section 8, E POSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** Minimize sources of ignition, such as static build-up, heat, spark or flame. Store in a dry place. See Section 10 for more specific information.

### Storage stability

**Storage temperature:** 25 C (77 F)      **Storage Period:** 12 Month

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Isobutane	ACGIH	STEL	1,000 ppm
Methyl ether	US WEEL	TWA	1,000 ppm
Propane	ACGIH		Asphyxiant
	OSHA -1	TWA	1,800 mg/m3 1,000 ppm
4,4 -Methylenediphenyl diisocyanate	Dow IHG	TWA	0.005 ppm
	Dow IHG	STEL	0.02 ppm
	ACGIH	TWA	0.005 ppm
	OSHA -1	C	0.2 mg/m3 0.02 ppm
	NIOSH REL	TWA	0.05 mg/m3 0.005 ppm
	NIOSH REL	C	0.2 mg/m3 0.02 ppm

### Exposure controls

**Engineering controls:** Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure. Lethal concentrations may exist in areas with poor ventilation.

### Individual protection measures

**Eye/face protection:** Use safety glasses (with side shields).

**Skin protection**



**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ( EVAL ). Examples of acceptable glove barrier materials include: Neoprene. Nitrile/butadiene rubber ( nitrile or NBR ). Viton. Polyvinyl chloride ( PVC or vinyl ). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

Physical state	Foam
Color	Yellow
Odor	Mild
Odor Threshold	No test data available
pH	<i>Not applicable</i>
Melting point/range	No test data available
Freezing point	No test data available
Boiling point (760 mmHg)	Not applicable
Flash point	<b>closed cup</b> -104 C (-155 F) <i>Estimated.</i>
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	No data available
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	1,151 kPa at 55 C (131 F) <i>Calculated.</i>
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	1.06 <i>Estimated.</i>
Water solubility	Insoluble

<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No test data available
<b>Decomposition temperature</b>	No test data available
<b>Kinematic Viscosity</b>	Not applicable
<b>Explosive properties</b>	Not explosive
<b>Oxidizing properties</b>	No
<b>Molecular weight</b>	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** No data available

**Chemical stability:** Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

**Possibility of hazardous reactions:** Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Acids.

**Conditions to avoid:** Avoid temperatures above 50 °C. Elevated temperatures can cause container to vent and/or rupture. Exposure to elevated temperatures can cause product to decompose.

**Incompatible materials:** Avoid contact with: Acids. Alcohols. Amines. Ammonia. Bases. Metal compounds. Strong oxidizers. Products based on diisocyanates like TDI and MDI react with many materials to release heat. The reaction rate increases with temperature as well as with increased contact; these reactions can become violent. Contact is increased by stirring or if the other material acts as a solvent. Products based on diisocyanates such as TDI and MDI are not soluble in water and will sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data is available.*

### Acute toxicity

#### Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause in ury; however, swallowing larger amounts may cause in ury. Observations in animals include: Gastrointestinal irritation.

As product: Single dose oral LD50 has not been determined.

LD50, Rat, 2,000 mg/kg Estimated.

**Acute dermal toxicity**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

LD50, Rabbit, 2,000 mg/kg Estimated.

**Acute inhalation toxicity**

In confined or poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to displacement of oxygen. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause pulmonary edema (fluid in the lungs.) Effects may be delayed. May cause central nervous system depression. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). Decreased lung function has been associated with overexposure to isocyanates.

The LC50 has not been determined.,

**Skin corrosion/irritation**

Prolonged contact may cause moderate skin irritation with local redness.

Material may stick to skin causing irritation upon removal.

May stain skin.

**Serious eye damage/eye irritation**

May cause eye irritation.

May cause slight temporary corneal in ury.

**Sensitization**

Skin contact may cause an allergic skin reaction.

Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

May cause allergic respiratory reaction.

MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized.

Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest.

Occasionally, breathing difficulties may be life threatening.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

May cause respiratory irritation.

Route of Exposure: Inhalation

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Tissue in ury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols.

Contains component(s) which have been reported to cause effects on the following organs in animals: kidney

Liver.

### **Carcinogenicity**

Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m<sup>3</sup>) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

### **Teratogenicity**

In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

### **Reproductive toxicity**

Based on information for component(s): May cause harm to breastfed babies.

### **Mutagenicity**

In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies; other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

### **Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

### **Carcinogenicity**

#### **Component**

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

#### **List**

IARC

US NTP

#### **Classification**

Group 2B: Possibly carcinogenic to humans

Reasonably anticipated to be a human carcinogen

## **12. ECOLOGICAL INFORMATION**

*Ecotoxicological information appears in this section when such data is available.*

### **Toxicity**

#### **Diphenylmethane Diisocyanate, isomers and homologues**

##### **Acute toxicity to fish**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC<sub>50</sub>/EC<sub>50</sub>/EL<sub>50</sub>/LL<sub>50</sub> 100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC<sub>50</sub>, Danio rerio (zebra fish), static test, 96 Hour, 1,000 mg/l, OECD Test Guideline 203 or Equivalent

##### **Acute toxicity to aquatic invertebrates**

Based on information for a similar material:

EC<sub>50</sub>, Daphnia magna (Water flea), static test, 24 Hour, 1,000 mg/l, OECD Test Guideline 202 or Equivalent

**Acute toxicity to algae/aquatic plants**

Based on information for a similar material:  
NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

Based on information for a similar material:  
EC50, activated sludge, static test, 3 Hour, Respiration rates., 100 mg/l

**Toxicity to soil-dwelling organisms**

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, 1,000 mg/kg

**Toxicity to terrestrial plants**

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l  
EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Acute toxicity to fish**

For this family of materials:  
Material is practically non-toxic to aquatic organisms on an acute basis  
(LC50/EC50/EL50/LL50 100 mg/L in the most sensitive species tested).

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Acute toxicity to fish**

Not expected to be acutely toxic to aquatic organisms.

**Tris(1-chloro-2-propyl) phosphate**

**Acute toxicity to fish**

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).  
LC50, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, 84 mg/l, OECD Test Guideline 203 or Equivalent

**Acute toxicity to aquatic invertebrates**

EC50, Daphnia magna (Water flea), 48 Hour, 131 mg/l

**Acute toxicity to algae/aquatic plants**

ErC50, Pseudokirchneriella subcapitata (green algae), static test, 96 Hour, Growth rate inhibition, 82 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

EC50, activated sludge, Respiration inhibition, 3 Hour, 784 mg/l, OECD 209 Test

**Chronic toxicity to aquatic invertebrates**

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 32 mg/l  
LOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 32 mg/l

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Acute toxicity to fish**

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, 0.1 mg/l

**Isobutane**

**Acute toxicity to fish**

No relevant data found.

**Methyl ether**

**Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 100 mg/L in the most sensitive species tested).  
LC50, Poecilia reticulata (guppy), semi-static test, 96 Hour, 4,000 mg/l

**Acute toxicity to aquatic invertebrates**

LC50, Daphnia magna (Water flea), 48 Hour, 4,000 mg/l, OECD Test Guideline 202 or Equivalent

**Propane**

**Acute toxicity to fish**

No relevant data found.

**4,4' -Methylenediphenyl diisocyanate**

**Acute toxicity to fish**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC50, Danio rerio (zebra fish), static test, 96 Hour, 1,000 mg/l, OECD Test Guideline 203 or Equivalent

**Acute toxicity to aquatic invertebrates**

Based on information for a similar material:

EC50, Daphnia magna (Water flea), static test, 24 Hour, 1,000 mg/l, OECD Test Guideline 202 or Equivalent

**Acute toxicity to algae/aquatic plants**

Based on information for a similar material:

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

Based on information for a similar material:

EC50, activated sludge, static test, 3 Hour, Respiration rates., 100 mg/l

**Toxicity to soil-dwelling organisms**

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, 1,000 mg/kg

**Toxicity to terrestrial plants**

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

**Persistence and degradability**

**Diphenylmethane Diisocyanate, isomers and homologues**

**Biodegradability:** In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

**Biodegradation:** 0 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 302C or Equivalent

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Biodegradability:** For this family of materials: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Biodegradability:** Expected to degrade slowly in the environment.

**Tris(1-chloro-2-propyl) phosphate**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

**Biodegradation:** 14 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301E or Equivalent

10-day Window: Not applicable

**Biodegradation:** 95 %

**Exposure time:** 64 d

**Method:** OECD Test Guideline 302A or Equivalent

**Theoretical Oxygen Demand:** 1.17 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 0.24 d

**Method:** Estimated.

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Biodegradability:** Expected to degrade slowly in the environment.

**Theoretical Oxygen Demand:** 2.89 mg/mg

**Isobutane**

**Biodegradability:** Biodegradation may occur under aerobic conditions (in the presence of oxygen).

**Theoretical Oxygen Demand:** 3.58 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 4.4 d

**Method:** Estimated.

**Methyl ether**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

**Biodegradation:** 5 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301A or Equivalent

**Theoretical Oxygen Demand:** 2.08 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 6.4 d

**Method:** Estimated.

**Propane**

**Biodegradability:** No relevant data found.

**Theoretical Oxygen Demand:** 3.64 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 8.4 d

**Method:** Estimated.

**4,4' -Methylenediphenyl diisocyanate**

**Biodegradability:** In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

**Biodegradation:** 0 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 302C or Equivalent

**Bioaccumulative potential**

**Diphenylmethane Diisocyanate, isomers and homologues**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Bioconcentration factor (BCF):** 92 Cyprinus carpio (Carp) 28 d

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Bioaccumulation:** No relevant data found.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**



**Bioaccumulation:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Tris(1-chloro-2-propyl) phosphate**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.59 Measured

**Bioconcentration factor (BCF):** 0.8 - 4.6 Cyprinus carpio (Carp) 42 d Measured

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Bioaccumulation:** Bioconcentration potential is low (BCF less than 100 or log Pow greater than 7).

**Partition coefficient: n-octanol/water(log Pow):** 7.4 Estimated.

**Isobutane**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.76 Measured

**Methyl ether**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 0.10 Measured

**Propane**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.36 Measured

**4,4' -Methylenediphenyl diisocyanate**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Bioconcentration factor (BCF):** 92 Cyprinus carpio (Carp) 28 d

**Mobility in soil**

**Diphenylmethane Diisocyanate, isomers and homologues**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

No relevant data found.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Tris(1-chloro-2-propyl) phosphate**

Potential for mobility in soil is slight (Koc between 2000 and 5000).

**Partition coefficient(Koc):** 1300 Estimated.

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Expected to be relatively immobile in soil (Koc = 5000).

**Partition coefficient(Koc):** 5000 Estimated.

**Isobutane**

Potential for mobility in soil is very high (Koc between 0 and 50).  
**Partition coefficient(Koc):** 35 Estimated.

**Methyl ether**

Potential for mobility in soil is very high (Koc between 0 and 50).  
**Partition coefficient(Koc):** 1.29 - 14 Estimated.

**Propane**

Potential for mobility in soil is very high (Koc between 0 and 50).  
**Partition coefficient(Koc):** 24 - 460 Estimated.

**4,4' -Methylenediphenyl diisocyanate**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

### **13. DISPOSAL CONSIDERATIONS**

**Disposal methods:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

### **14. TRANSPORT INFORMATION**

**DOT**

<b>Proper shipping name</b>	Aerosols
<b>UN number</b>	UN 1950
<b>Class</b>	2.1
<b>Packing group</b>	

**Classification for SEA transport (IMO-IMDG):**

<b>Proper shipping name</b>	AEROSOLS
<b>UN number</b>	UN 1950
<b>Class</b>	2.1
<b>Packing group</b>	
<b>Marine pollutant</b>	Paraffin waxes and Hydrocarbon waxes, chlorinated
<b>Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code</b>	Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

<b>Proper shipping name</b>	Aerosols, flammable
<b>UN number</b>	UN 1950
<b>Class</b>	2.1
<b>Packing group</b>	

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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## **15. REGULATORY INFORMATION**

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**OSHA Hazard Communication Standard**

This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Acute Health Hazard  
Chronic Health Hazard  
Fire Hazard

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

<b>Components</b>	<b>CASRN</b>
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9
4,4 -Methylenediphenyl diisocyanate	101-68-8

**Pennsylvania Worker and Community Right-To-Know Act:**

The following chemicals are listed because of the additional requirements of Pennsylvania law:

<b>Components</b>	<b>CASRN</b>
Isobutane	75-28-5
Methyl ether	115-10-6
Propane	74-98-6

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

### United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

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## 16. OTHER INFORMATION

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### Revision

Identification Number: 101194255 / A001 / Issue Date: 01/19/2016 / Version: 8.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

### Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
Asphyxiant	Asphyxiant
C	Ceiling
Dow IHG	Dow Industrial Hygiene Guideline
NIOSH REL	USA. NIOSH Recommended Exposure Limits
OSHA -1	USA. Occupational Exposure Limits (OSHA) - Table -1 Limits for Air Contaminants
STEL	Short term exposure limit
TWA	Time weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

### Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer s/user s responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer s/user s duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.



## SAFETY DATA SHEET

### 1. Identification

**Product identifier** Galvanized Steel-Low C and HSLA Steel (Hot Dipped)

**Other means of identification**

**Product code** TECHS 001

**Synonyms** Steel

**Recommended use** Construction Products, Finished Goods Components, Capital Goods Components.

**Recommended restrictions** None known.

**Manufacturer / Importer / Supplier / Distributor Information**

**Manufacturer/Supplier Address** Ductmate Industries Inc  
210 5th Street  
Charleroi, PA  
15022

**Telephone Number** 1-800-245-3188

**Fax** 724-258-5494

**Email** orders@ductmate.com

**Emergency Telephone Number - ChemTel Inc** 1-800-255-3924, +1 (813)-248-0585

### 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

**Label elements**

**Hazard symbol** None.

**Signal word** None.

**Hazard statement** None.

**Precautionary statement**

**Prevention** Observe good industrial hygiene practices.

**Response** Wash skin with soap and water.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Iron	7439-89-6	80-99.5
Zinc	7440-66-6	0.5-19.0
Manganese	7439-96-5	0.0-1.35
Nickel	7440-02-0	0-0.2

The product is an alloy. At temperatures above the melting point steel products may liberate fumes containing oxides of iron and alloying elements.

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.  
Product contains less than 0.004% cadmium and less than 0.01% lead, mercury, hexavalent chromium, antimony, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE). Some of these components are specifically regulated by OSHA.

#### 4. First-aid measures

<b>Inhalation</b>	In case of inhalation of fumes from heated product: Move into fresh air and keep at rest. Get medical attention if symptoms persist. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration.
<b>Skin contact</b>	Contact with dust: Wash skin with soap and water. Cuts or abrasions should be treated promptly with thorough cleansing of the affected area. In case of burns with hot metal, rinse with plenty of cold water. If burns are severe, consult a physician.
<b>Eye contact</b>	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Do not rub eye. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Not likely, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting.
<b>Most important symptoms/effects, acute and delayed</b>	Symptoms can include irritation, redness, scratching of the cornea, and tearing. Mechanical rubbing may increase skin irritation. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.
<b>General information</b>	Processing may generate hazardous fumes and dusts.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	This material will not burn. Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media</b>	None.
<b>Specific hazards arising from the chemical</b>	Metallic coating will begin to melt around 427°C (800°F) and the metal will begin to melt around 1510°C (2750°F). This product will proceed to a liquid and will form irritating and toxic gaseous metallic oxides at extremely high temperatures.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Cold solid metal: No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the SDS for additional personal protection advice when handling this product. Hot metal: Avoid contact with hot material. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid generation and spreading of dust and fumes.
<b>Methods and materials for containment and cleaning up</b>	In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. Collect dust using a vacuum cleaner equipped with HEPA filter. Steel products may be recycled.
<b>Environmental precautions</b>	Metals in massive forms presents a limited hazard for the environment.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid generation and spreading of dust. Do not breathe fumes or dust from this material. Avoid contact with sharp edges and hot surfaces. Use appropriate gloves and tools to ensure safe handling. Follow the recommendations in ANSI Z49.1, Safety in welding and cutting (ANSI=American National Standard Institute).
<b>Conditions for safe storage, including any incompatibilities</b>	Store in a dry area.

#### 8. Exposure controls/personal protection

##### Occupational exposure limits

##### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	Ceiling	5 mg/m <sup>3</sup>	Fume.
Nickel (CAS 7440-02-0)	PEL	1 mg/m <sup>3</sup>	

##### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0.1 mg/m <sup>3</sup>	Inhalable fraction.
Nickel (CAS 7440-02-0)	TWA	0.02 mg/m <sup>3</sup> 1.5 mg/m <sup>3</sup>	Respirable fraction. Inhalable fraction.

## US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	STEL	3 mg/m <sup>3</sup>	Fume.
Nickel (CAS 7440-02-0)	TWA	1 mg/m <sup>3</sup>	Fume.
	TWA	0.015 mg/m <sup>3</sup>	
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).		
<b>Appropriate engineering controls</b>	Use local exhaust when welding, burning, sawing, brazing, grinding or machining to prevent excessive dust or fume exposure. Inorganic lead and cadmium are specifically regulated material. Consult 29 CFR 1910 for other requirement if action level is attained.		
<b>Individual protection measures, such as personal protective equipment</b>			
<b>Eye/face protection</b>	Use of safety glasses or goggles is required for welding, burning, sawing, brazing, grinding or machining operations.		
<b>Skin protection</b>			
<b>Hand protection</b>	Wear suitable protective gloves to prevent contact, cuts and abrasions.		
<b>Other</b>	Risk of contact: Wear suitable protective clothing.		
<b>Respiratory protection</b>	Not normally needed. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.		
<b>Thermal hazards</b>	When material is heated, wear gloves to protect against thermal burns. Thermally protective apron and long sleeves are recommended when volume of hot material is significant.		
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.		

### 9. Physical and chemical properties

<b>Appearance</b>	Massive, solid metal.
<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Color</b>	Metallic gray.
<b>Odor</b>	None.
<b>Odor threshold</b>	Not applicable.
<b>pH</b>	Not applicable.
<b>Melting point/freezing point</b>	2751.8 °F (1511 °C) Base metal, 798.8 - 899.6 °F (426 - 482 °C) Metallic Coating
<b>Initial boiling point and boiling range</b>	Not applicable.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not applicable.
<b>Flammability limit - upper (%)</b>	Not applicable.
<b>Explosive limit - lower (%)</b>	Not applicable.
<b>Explosive limit - upper (%)</b>	Not applicable.
<b>Vapor pressure</b>	Not applicable.
<b>Vapor density</b>	Not applicable.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble in water.
<b>Partition coefficient (n-octanol/water)</b>	Not applicable.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not applicable.

### 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
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<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	Contact with strong acids will release highly flammable hydrogen gas.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong acids.
<b>Hazardous decomposition products</b>	Metal oxides.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Solid steel: Not relevant, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting.
<b>Inhalation</b>	No inhalation hazard under normal conditions. Welding, burning, sawing, brazing, grinding or machining operations may generate fumes and dusts of metal oxides. High concentrations of freshly formed fumes/dusts of metal oxides can produce symptoms of metal fume fever. Typical symptoms last 12 to 48 hours and are characterized by metallic taste in the mouth, dryness, and irritation of the throat, followed by weakness, muscle pain, fever, and chills.
<b>Skin contact</b>	Under normal conditions of intended use, this material does not pose a risk to health. Dust may irritate skin. Contact with hot material can cause thermal burns which may result in permanent damage.
<b>Eye contact</b>	Under normal conditions of intended use, this material does not pose a risk to health. Contact with hot material can cause thermal burns which may result in permanent damage. Grinding and sanding this product may generate dust. Dust may irritate the eyes.

**Symptoms related to the physical, chemical and toxicological characteristics**  
Symptoms include itching, burning, redness, and tearing of eyes. Mechanical irritation of skin. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.

### Information on toxicological effects

**Acute toxicity**  
Welding, cutting and metalizing can generate ozone. Ozone can cause irritation of eyes, nose and respiratory tract.

Components	Species	Test Results
Iron (CAS 7439-89-6)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	30 g/kg
Manganese (CAS 7439-96-5)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	9000 mg/kg
<b>Skin corrosion/irritation</b>	Not classified.	
<b>Serious eye damage/eye irritation</b>	Not classified.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	No data available.	
<b>Skin sensitization</b>	Contains nickel: May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	No data available.	
<b>Carcinogenicity</b>	For solid product: The product is not classified as carcinogen.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Nickel (CAS 7440-02-0)	2B Possibly carcinogenic to humans.	
<b>NTP Report on Carcinogens</b>		
Nickel (CAS 7440-02-0)	Reasonably Anticipated to be a Human Carcinogen.	
<b>Reproductive toxicity</b>	No data available.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not applicable for solids.	
<b>Chronic effects</b>	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Exposure to manganese fume/dust can affect the central nervous system (apathy, drowsiness, weakness and other chronic symptoms such as postural tremors).	



**Further information**

The ingredients of the alloy are bound within the product and release is not expected under normal conditions. In its manufactured and shipped state, this product is considered non-hazardous. Processing may generate hazardous fumes and dusts.

**12. Ecological information**

**Ecotoxicity** Not expected to be harmful to aquatic organisms.

Components	Species	Test Results
Iron (CAS 7439-89-6) <b>Aquatic</b>		
Fish	LC50 Channel catfish ( <i>Ictalurus punctatus</i> )	> 500 mg/l, 96 hours
Nickel (CAS 7440-02-0) <b>Aquatic</b>		
Fish	LC50 Fathead minnow ( <i>Pimephales promelas</i> )	2.916 mg/l, 96 hours
Zinc (CAS 7440-66-6) <b>Aquatic</b>		
Fish	LC50 Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )	0.24 mg/l, 96 hours

<b>Persistence and degradability</b>	No data available.
<b>Bioaccumulative potential</b>	No data available on bioaccumulation.
<b>Mobility in soil</b>	Not available.
<b>Mobility in general</b>	Not relevant, due to the form of the product.
<b>Other adverse effects</b>	None known.

**13. Disposal considerations**

<b>Disposal instructions</b>	Dispose waste and residues in accordance with applicable federal, state, and local regulations.
<b>Hazardous waste code</b>	Not regulated.
<b>Waste from residues / unused products</b>	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Recover and recycle, if practical.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**14. Transport information****DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

**15. Regulatory information**

**US federal regulations** Under some use conditions, this material may be considered to be hazardous in accordance with OSHA 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Manganese (CAS 7439-96-5)	LISTED
Nickel (CAS 7440-02-0)	LISTED
Zinc (CAS 7440-66-6)	LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<b>Hazard categories</b>	Immediate Hazard - No
	Delayed Hazard - No
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Zinc	7440-66-6	0.5-19.0
Manganese	7439-96-5	0.0-1.35
Nickel	7440-02-0	0-0.2

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****US. Massachusetts RTK - Substance List**

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

Zinc (CAS 7440-66-6)

**US. New Jersey Worker and Community Right-to-Know Act**

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

Zinc (CAS 7440-66-6)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

Zinc (CAS 7440-66-6)

**US. Rhode Island RTK**

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

Zinc (CAS 7440-66-6)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Nickel (CAS 7440-02-0)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

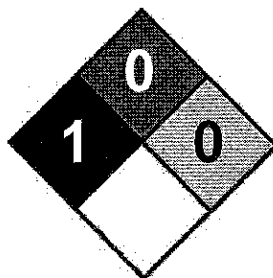
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

Revision date June 11, 2015

Version # 02

NFPA Ratings

**Disclaimer**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment. SDS's for specific coatings are available upon request.



# Safety Data Sheet

**Material Name: Gasoline All Grades**

**SDS No. 9950**  
US GHS

**Synonyms:** Hess Conventional (Oxygenated and Non-oxygenated) Gasoline; Reformulated Gasoline (RFG); Reformulated Gasoline Blendstock for Oxygenate Blending (RBOB); Unleaded Motor or Automotive Gasoline

## \*\*\* Section 1 - Product and Company Identification \*\*\*

### Manufacturer Information

Hess Corporation  
1 Hess Plaza  
Woodbridge, NJ 07095-0961

Phone: 732-750-6000 Corporate EHS  
Emergency # 800-424-9300 CHEMTREC  
[www.hess.com](http://www.hess.com) (Environment, Health, Safety Internet Website)

## \*\*\* Section 2 - Hazards Identification \*\*\*

### GHS Classification:

Flammable Liquid - Category 2  
Skin Corrosion/Irritation - Category 2  
Germ Cell Mutagenicity - Category 1B  
Carcinogenicity - Category 1B  
Toxic to Reproduction - Category 1A  
Specific Target Organ Toxicity (Single Exposure) - Category 3 (respiratory irritation, narcosis)  
Specific Target Organ Toxicity (Repeat Exposure) - Category 1 (liver, kidneys, bladder, blood, bone marrow, nervous system)  
Aspiration Hazard - Category 1  
Hazardous to the Aquatic Environment – Acute Hazard - Category 3

### GHS LABEL ELEMENTS

#### Symbol(s)



#### Signal Word

DANGER

#### Hazard Statements

Highly flammable liquid and vapour.  
Causes skin irritation.  
May cause genetic defects.  
May cause cancer.  
May damage fertility or the unborn child.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
Causes damage to organs (liver, kidneys, bladder, blood, bone marrow, nervous system) through prolonged or repeated exposure.  
May be fatal if swallowed and enters airways.  
Harmful to aquatic life.

# Safety Data Sheet

Material Name: Gasoline All Grades

SDS No. 9950

## Precautionary Statements

### Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking  
 Keep container tightly closed.  
 Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/lighting/equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Wash hands and forearms thoroughly after handling.  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Do not breathe mist/vapours/spray.  
 Use only outdoors or in well-ventilated area.  
 Do not eat, drink or smoke when using this product.  
 Avoid release to the environment.

### Response

In case of fire: Use water spray, fog, dry chemical fire extinguishers or hand held fire extinguisher.  
 IF ON SKIN (or hair): Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.  
 IF exposed or concerned: Get medical advice/attention.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.  
 Get medical advice/attention if you feel unwell.  
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.

### Storage

Store in a well-ventilated place.  
 Keep cool. Keep container tightly closed.  
 Store locked up.

### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

## \* \* \* Section 3 - Composition / Information on Ingredients \* \* \*

CAS #	Component	Percent
86290-81-5	Gasoline, motor fuel	100
108-88-3	Toluene	1-25
106-97-8	Butane	<10
1330-20-7	Xylenes (o-, m-, p- isomers)	1-15
95-63-6	Benzene, 1,2,4-trimethyl-	<6
64-17-5	Ethyl alcohol	0-10
100-41-4	Ethylbenzene	<3
71-43-2	Benzene	0.1-4.9

# Safety Data Sheet

**Material Name: Gasoline All Grades**

**SDS No. 9950**

110-54-3	Hexane	0.5-4
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A complex blend of petroleum-derived normal and branched-chain alkane, cycloalkane, alkene, and aromatic hydrocarbons. May contain antioxidant and multifunctional additives. Non-oxygenated Conventional Gasoline and RBOB do not have oxygenates (Ethanol). Oxygenated Conventional and Reformulated Gasoline will have oxygenates for octane enhancement or as legally required.

## \* \* \* Section 4 - First Aid Measures \* \* \*

### First Aid: Eyes

In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.

### First Aid: Skin

Remove contaminated clothing. Wash contaminated areas thoroughly with soap and water or with waterless hand cleanser. Obtain medical attention if irritation or redness develops.

### First Aid: Ingestion

DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

### First Aid: Inhalation

Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

## \* \* \* Section 5 - Fire Fighting Measures \* \* \*

### General Fire Hazards

See Section 9 for Flammability Properties.

Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

### Hazardous Combustion Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke). Contact with nitric and sulfuric acids will form nitroresols that can decompose violently.

### Extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO<sub>2</sub>, water spray, fire fighting foam, or gaseous extinguishing agent.

LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Firefighting foam suitable for polar solvents is recommended for fuel with greater than 10% oxygenate concentration.

### Unsuitable Extinguishing Media

None

# Safety Data Sheet

Material Name: Gasoline All Grades

SDS No. 9950

## Fire Fighting Equipment/Instructions

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment. Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

## \* \* \* Section 6 - Accidental Release Measures \* \* \*

### Recovery and Neutralization

Carefully contain and stop the source of the spill, if safe to do so.

### Materials and Methods for Clean-Up

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal. Caution, flammable vapors may accumulate in closed containers.

### Emergency Measures

Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

### Personal Precautions and Protective Equipment

Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

### Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

### Prevention of Secondary Hazards

None

## \* \* \* Section 7 - Handling and Storage \* \* \*

### Handling Procedures

USE ONLY AS A MOTOR FUEL.  
DO NOT SIPHON BY MOUTH

Handle as a flammable liquid. Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

# Safety Data Sheet

**Material Name: Gasoline All Grades**

**SDS No. 9950**

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

## Storage Procedures

Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks".

## Incompatibilities

Keep away from strong oxidizers.

### \* \* \* Section 8 - Exposure Controls / Personal Protection \* \* \*

## Component Exposure Limits

### Gasoline, motor fuel (86290-81-5)

ACGIH: 300 ppm TWA  
500 ppm STEL

### Toluene (108-88-3)

ACGIH: 20 ppm TWA  
OSHA: 200 ppm TWA; 375 mg/m<sup>3</sup> TWA  
150 ppm STEL; 560 mg/m<sup>3</sup> STEL  
NIOSH: 100 ppm TWA; 375 mg/m<sup>3</sup> TWA  
150 ppm STEL; 560 mg/m<sup>3</sup> STEL

### Butane (106-97-8)

ACGIH: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)  
OSHA: 800 ppm TWA; 1900 mg/m<sup>3</sup> TWA  
NIOSH: 800 ppm TWA; 1900 mg/m<sup>3</sup> TWA

### Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: 100 ppm TWA  
150 ppm STEL  
OSHA: 100 ppm TWA; 435 mg/m<sup>3</sup> TWA  
150 ppm STEL; 655 mg/m<sup>3</sup> STEL

### Benzene, 1,2,4-trimethyl- (95-63-6)

NIOSH: 25 ppm TWA; 125 mg/m<sup>3</sup> TWA

### Ethyl alcohol (64-17-5)

ACGIH: 1000 ppm STEL  
OSHA: 1000 ppm TWA; 1900 mg/m<sup>3</sup> TWA  
NIOSH: 1000 ppm TWA; 1900 mg/m<sup>3</sup> TWA

# Safety Data Sheet

**Material Name: Gasoline All Grades**

**SDS No. 9950**

## **Ethylbenzene (100-41-4)**

ACGIH: 20 ppm TWA  
OSHA: 100 ppm TWA; 435 mg/m<sup>3</sup> TWA  
125 ppm STEL; 545 mg/m<sup>3</sup> STEL  
NIOSH: 100 ppm TWA; 435 mg/m<sup>3</sup> TWA  
125 ppm STEL; 545 mg/m<sup>3</sup> STEL

## **Benzene (71-43-2)**

ACGIH: 0.5 ppm TWA  
2.5 ppm STEL  
Skin - potential significant contribution to overall exposure by the cutaneous route  
OSHA: 5 ppm STEL (Cancer hazard, Flammable, See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA  
NIOSH: 0.1 ppm TWA  
1 ppm STEL

## **Hexane (110-54-3)**

ACGIH: 50 ppm TWA  
Skin - potential significant contribution to overall exposure by the cutaneous route  
OSHA: 500 ppm TWA; 1800 mg/m<sup>3</sup> TWA  
NIOSH: 50 ppm TWA; 180 mg/m<sup>3</sup> TWA

## **Engineering Measures**

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

## **Personal Protective Equipment: Respiratory**

A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

## **Personal Protective Equipment: Hands**

Gloves constructed of nitrile, neoprene, or PVC are recommended.

## **PERSONAL PROTECTIVE EQUIPMENT**

### **Personal Protective Equipment: Eyes**

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

### **Personal Protective Equipment: Skin and Body**

Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.



# Safety Data Sheet

Material Name: Gasoline All Grades

SDS No. 9950

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

<b>Appearance:</b>	Translucent, straw-colored or light yellow	<b>Odor:</b>	Strong, characteristic aromatic hydrocarbon odor. Sweet-ether like
<b>Physical State:</b>	Liquid	<b>pH:</b>	ND
<b>Vapor Pressure:</b>	6.4 - 15 RVP @ 100 °F (38 °C) (275-475 mm Hg @ 68 °F (20 °C)	<b>Vapor Density:</b>	AP 3-4
<b>Boiling Point:</b>	85-437 °F (39-200 °C)	<b>Melting Point:</b>	ND
<b>Solubility (H2O):</b>	Negligible to Slight	<b>Specific Gravity:</b>	0.70-0.78
<b>Evaporation Rate:</b>	10-11	<b>VOC:</b>	ND
<b>Percent Volatile:</b>	100%	<b>Octanol/H2O Coeff.:</b>	ND
<b>Flash Point:</b>	-45 °F (-43 °C)	<b>Flash Point Method:</b>	PMCC
<b>Upper Flammability Limit (UFL):</b>	7.6%	<b>Lower Flammability Limit (LFL):</b>	1.4%
<b>Burning Rate:</b>	ND	<b>Auto Ignition:</b>	>530°F (>280°C)

## \*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*

### Chemical Stability

This is a stable material.

### Hazardous Reaction Potential

Will not occur.

### Conditions to Avoid

Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources.

### Incompatible Products

Keep away from strong oxidizers.

### Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke). Contact with nitric and sulfuric acids will form nitrocresols that can decompose violently.

## \*\*\* Section 11 - Toxicological Information \*\*\*

### Acute Toxicity

#### A: General Product Information

Harmful if swallowed.

#### B: Component Analysis - LD50/LC50

##### Gasoline, motor fuel (86290-81-5)

Inhalation LC50 Rat >5.2 mg/L 4 h; Oral LD50 Rat 14000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg

##### Toluene (108-88-3)

Inhalation LC50 Rat 12.5 mg/L 4 h; Inhalation LC50 Rat >26700 ppm 1 h; Oral LD50 Rat 636 mg/kg; Dermal LD50 Rabbit 8390 mg/kg; Dermal LD50 Rat 12124 mg/kg

##### Butane (106-97-8)

Inhalation LC50 Rat 658 mg/L 4 h

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**Xylenes (o-, m-, p- isomers) (1330-20-7)**

Inhalation LC50 Rat 5000 ppm 4 h; Inhalation LC50 Rat 47635 mg/L 4 h; Oral LD50 Rat 4300 mg/kg; Dermal LD50 Rabbit >1700 mg/kg

**Benzene, 1,2,4-trimethyl- (95-63-6)**

Inhalation LC50 Rat 18 g/m<sup>3</sup> 4 h; Oral LD50 Rat 3400 mg/kg; Dermal LD50 Rabbit >3160 mg/kg

**Ethyl alcohol (64-17-5)**

Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h

**Ethylbenzene (100-41-4)**

Inhalation LC50 Rat 17.2 mg/L 4 h; Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit 15354 mg/kg

**Benzene (71-43-2)**

Inhalation LC50 Rat 13050-14380 ppm 4 h; Oral LD50 Rat 1800 mg/kg

**Hexane (110-54-3)**

Inhalation LC50 Rat 48000 ppm 4 h; Oral LD50 Rat 25 g/kg; Dermal LD50 Rabbit 3000 mg/kg

## Potential Health Effects: Skin Corrosion Property/Stimulativeness

Practically non-toxic if absorbed following acute (single) exposure. May cause skin irritation with prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.

## Potential Health Effects: Eye Critical Damage/ Stimulativeness

Moderate irritant. Contact with liquid or vapor may cause irritation.

## Potential Health Effects: Ingestion

Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

## Potential Health Effects: Inhalation

Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

WARNING: the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

## Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any skin sensitization effects.

## Generative Cell Mutagenicity

This product may cause genetic defects.

## Carcinogenicity

### A: General Product Information

May cause cancer.

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**Material Name: Gasoline All Grades**

**SDS No. 9950**

IARC has determined that gasoline and gasoline exhaust are possibly carcinogenic in humans. Inhalation exposure to completely vaporized unleaded gasoline caused kidney cancers in male rats and liver tumors in female mice. The U.S. EPA has determined that the male kidney tumors are species-specific and are irrelevant for human health risk assessment. The significance of the tumors seen in female mice is not known. Exposure to light hydrocarbons in the same boiling range as this product has been associated in animal studies with effects to the central and peripheral nervous systems, liver, and kidneys. The significance of these animal models to predict similar human response to gasoline is uncertain.

This product contains benzene. Human health studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-forming system (particularly bone marrow), and serious blood disorders such as aplastic anemia and leukemia. Benzene is listed as a human carcinogen by the NTP, IARC, OSHA and ACGIH.

## B: Component Carcinogenicity

### Gasoline, motor fuel (86290-81-5)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

### Toluene (108-88-3)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

### Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

### Ethyl alcohol (64-17-5)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC: Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages) (Group 1 (carcinogenic to humans))

### Ethylbenzene (100-41-4)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC: Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans))

### Benzene (71-43-2)

ACGIH: A1 - Confirmed Human Carcinogen

OSHA: 5 ppm STEL (Cancer hazard, Flammable, See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA

NIOSH: potential occupational carcinogen

NTP: Known Human Carcinogen (Select Carcinogen)

IARC: Monograph 100F [in preparation]; Supplement 7 [1987]; Monograph 29 [1982] (Group 1 (carcinogenic to humans))

## Reproductive Toxicity

This product is suspected of damaging fertility or the unborn child.

## Specified Target Organ General Toxicity: Single Exposure

This product may cause drowsiness or dizziness.

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## Specified Target Organ General Toxicity: Repeated Exposure

This product causes damage to organs through prolonged or repeated exposure.

## Aspiration Respiratory Organs Hazard

The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

## \* \* \* Section 12 - Ecological Information \* \* \*

### Ecotoxicity

#### A: General Product Information

Very toxic to aquatic life with long lasting effects. Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable, under Federal and State regulations.

#### B: Component Analysis - Ecotoxicity - Aquatic Toxicity

##### Gasoline, motor fuel (86290-81-5)

Test & Species	Conditions
96 Hr LC50 Alburnus alburnus	119 mg/L [static]
96 Hr LC50 Cyprinodon variegatus	82 mg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	56 mg/L
24 Hr EC50 Daphnia magna	170 mg/L

##### Toluene (108-88-3)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	15.22-19.05 mg/L [flow-through]
96 Hr LC50 Pimephales promelas	12.6 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	5.89-7.81 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	14.1-17.16 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	5.8 mg/L [semi-static]
96 Hr LC50 Lepomis macrochirus	11.0-15.0 mg/L [static]
96 Hr LC50 Oryzias latipes	54 mg/L [static]
96 Hr LC50 Poecilia reticulata	28.2 mg/L [semi-static]
96 Hr LC50 Poecilia reticulata	50.87-70.34 mg/L [static]
96 Hr EC50 Pseudokirchneriella subcapitata	>433 mg/L
72 Hr EC50 Pseudokirchneriella subcapitata	12.5 mg/L [static]
48 Hr EC50 Daphnia magna	5.46 - 9.83 mg/L [Static]
48 Hr EC50 Daphnia magna	11.5 mg/L

##### Xylenes (o-, m-, p- isomers) (1330-20-7)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	13.4 mg/L [flow-through]

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**Material Name: Gasoline All Grades**

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96 Hr LC50 Oncorhynchus mykiss	2.661-4.093 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	13.5-17.3 mg/L
96 Hr LC50 Lepomis macrochirus	13.1-16.5 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	19 mg/L
96 Hr LC50 Lepomis macrochirus	7.711-9.591 mg/L [static]
96 Hr LC50 Pimephales promelas	23.53-29.97 mg/L [static]
96 Hr LC50 Cyprinus carpio	780 mg/L [semi- static]
96 Hr LC50 Cyprinus carpio	>780 mg/L
96 Hr LC50 Poecilia reticulata	30.26-40.75 mg/L [static]
48 Hr EC50 water flea	3.82 mg/L
48 Hr LC50 Gammarus lacustris	0.6 mg/L

## **Benzene, 1,2,4-trimethyl- (95-63-6)**

### **Test & Species**

96 Hr LC50 Pimephales promelas	7.19-8.28 mg/L [flow-through]
48 Hr EC50 Daphnia magna	6.14 mg/L

### **Conditions**

## **Ethyl alcohol (64-17-5)**

### **Test & Species**

96 Hr LC50 Oncorhynchus mykiss	12.0 - 16.0 mL/L [static]
96 Hr LC50 Pimephales promelas	>100 mg/L [static]
96 Hr LC50 Pimephales promelas	13400 - 15100 mg/L [flow-through]
48 Hr LC50 Daphnia magna	9268 - 14221 mg/L
24 Hr EC50 Daphnia magna	10800 mg/L
48 Hr EC50 Daphnia magna	2 mg/L [Static]

### **Conditions**

## **Ethylbenzene (100-41-4)**

### **Test & Species**

96 Hr LC50 Oncorhynchus mykiss	11.0-18.0 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	4.2 mg/L [semi- static]
96 Hr LC50 Pimephales promelas	7.55-11 mg/L [flow- through]
96 Hr LC50 Lepomis macrochirus	32 mg/L [static]
96 Hr LC50 Pimephales promelas	9.1-15.6 mg/L [static]
96 Hr LC50 Poecilia reticulata	9.6 mg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	4.6 mg/L
96 Hr EC50 Pseudokirchneriella subcapitata	>438 mg/L
72 Hr EC50 Pseudokirchneriella subcapitata	2.6 - 11.3 mg/L [static]

### **Conditions**

# Safety Data Sheet

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96 Hr EC50 Pseudokirchneriella subcapitata	1.7 - 7.6 mg/L [static]
48 Hr EC50 Daphnia magna	1.8 - 2.4 mg/L

## **Benzene (71-43-2)**

### **Test & Species**

### **Conditions**

96 Hr LC50 Pimephales promelas	10.7-14.7 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	5.3 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	22.49 mg/L [static]
96 Hr LC50 Poecilia reticulata	28.6 mg/L [static]
96 Hr LC50 Pimephales promelas	22330-41160 µg/L [static]
96 Hr LC50 Lepomis macrochirus	70000-142000 µg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	29 mg/L
48 Hr EC50 Daphnia magna	8.76 - 15.6 mg/L [Static]
48 Hr EC50 Daphnia magna	10 mg/L

## **Hexane (110-54-3)**

### **Test & Species**

### **Conditions**

96 Hr LC50 Pimephales promelas	2.1-2.98 mg/L [flow-through]
24 Hr EC50 Daphnia magna	>1000 mg/L

## **Persistence/Degradability**

No information available.

## **Bioaccumulation**

No information available.

## **Mobility in Soil**

No information available.

* * * <b>Section 13 - Disposal Considerations</b> * * *
---

## **Waste Disposal Instructions**

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

## **Disposal of Contaminated Containers or Packaging**

Dispose of contents/container in accordance with local/regional/national/international regulations.

# Safety Data Sheet

Material Name: Gasoline All Grades

SDS No. 9950

## \*\*\* Section 14 - Transportation Information \*\*\*

### Component Marine Pollutants

This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants.

Component	CAS #	
Gasoline, motor fuel	86290-81-5	DOT regulated marine pollutant

### DOT Information

**Shipping Name:** Gasoline

**UN #: 1203 Hazard Class: 3 Packing Group: II**

**Placard:**



## \*\*\* Section 15 - Regulatory Information \*\*\*

### Regulatory Information

#### A: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

#### **Toluene (108-88-3)**

SARA 313: 1.0 % de minimis concentration  
 CERCLA: 1000 lb final RQ; 454 kg final RQ

#### **Xylenes (o-, m-, p- isomers) (1330-20-7)**

SARA 313: 1.0 % de minimis concentration  
 CERCLA: 100 lb final RQ; 45.4 kg final RQ

#### **Benzene, 1,2,4-trimethyl- (95-63-6)**

SARA 313: 1.0 % de minimis concentration

#### **Ethylbenzene (100-41-4)**

SARA 313: 0.1 % de minimis concentration  
 CERCLA: 1000 lb final RQ; 454 kg final RQ

#### **Benzene (71-43-2)**

SARA 313: 0.1 % de minimis concentration  
 CERCLA: 10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule)

# Safety Data Sheet

**Material Name: Gasoline All Grades**

**SDS No. 9950**

**Hexane (110-54-3)**

SARA 313: 1.0 % de minimis concentration

CERCLA: 5000 lb final RQ; 2270 kg final RQ

**SARA Section 311/312 – Hazard Classes**

Acute Health

X

Chronic Health

X

Fire

X

Sudden Release of Pressure

--

Reactive

--

**Component Marine Pollutants**

This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants.

Component	CAS #	
Gasoline, motor fuel	86290-81-5	DOT regulated marine pollutant

**State Regulations**

**Component Analysis - State**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Gasoline, motor fuel	86290-81-5	No	No	No	No	Yes	No
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes	No
Butane	106-97-8	Yes	Yes	Yes	Yes	Yes	No
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes	No
Benzene, 1,2,4-trimethyl-	95-63-6	No	Yes	Yes	Yes	Yes	No
Ethyl alcohol	64-17-5	Yes	Yes	Yes	Yes	Yes	No
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	Yes	No
Benzene	71-43-2	Yes	Yes	Yes	Yes	Yes	No
Hexane	110-54-3	No	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.



# Safety Data Sheet

**Material Name: Gasoline All Grades**
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**Component Analysis - WHMIS IDL**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

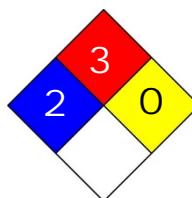
Component	CAS #	Minimum Concentration
Toluene	108-88-3	1 %
Butane	106-97-8	1 %
Benzene, 1,2,4-trimethyl-	95-63-6	0.1 %
Ethyl alcohol	64-17-5	0.1 %
Ethylbenzene	100-41-4	0.1 %
Benzene	71-43-2	0.1 %
Hexane	110-54-3	1 %

**Additional Regulatory Information**
**Component Analysis - Inventory**

Component	CAS #	TSCA	CAN	EEC
Gasoline, motor fuel	86290-81-5	No	DSL	EINECS
Toluene	108-88-3	Yes	DSL	EINECS
Butane	106-97-8	Yes	DSL	EINECS
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	DSL	EINECS
Benzene, 1,2,4-trimethyl-	95-63-6	Yes	DSL	EINECS
Ethyl alcohol	64-17-5	Yes	DSL	EINECS
Ethylbenzene	100-41-4	Yes	DSL	EINECS
Benzene	71-43-2	Yes	DSL	EINECS
Hexane	110-54-3	Yes	DSL	EINECS

**\*\*\* Section 16 - Other Information \*\*\***

**NFPA® Hazard Rating**  
 Health 2  
 Fire 3  
 Reactivity 0



**HMIS® Hazard Rating**  
 Health 2 Moderate  
 Fire 3 Serious  
 Physical 0 Minimal  
 \*Chronic

**Key/Legend**

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

**Literature References**

None

## Safety Data Sheet

**Material Name: Gasoline All Grades**

**SDS No. 9950**

### Other Information

Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

End of Sheet

**1. Identification**

**Product identifier** GEL GLOSS AEROSOL GA-12  
**Other means of identification** Not available.  
**Recommended use** Surface gloss.  
**Recommended restrictions** None known.  
**Manufacturer / Importer / Supplier / Distributor information**  
**Manufacturer/Supplier** Granitize Products, Inc.  
 11022 Vulcan Street  
 South Gate, CA 90280-0893 US  
**Telephone:** (562) 923-5438  
**Emergency** CHEMTREC: (800) 424-9300  
 CHEMTREC International: 00 1-703-527-3887

**2. Hazard(s) identification**

**Physical hazards** Flammable aerosols Category 1  
**Health hazards** Acute toxicity, inhalation Category 4  
 Sensitization, skin Category 1  
 Carcinogenicity Category 1A  
 Specific target organ toxicity, repeated exposure Category 2 (Lung)  
**Environmental hazards** Hazardous to the aquatic environment, long-term hazard Category 2  
**OSHA defined hazards** Not classified.  
**Label elements**



**Signal word** Danger

**Hazard statement** Extremely flammable aerosol. Harmful if inhaled. May cause cancer. May cause damage to organs (Lung) through prolonged or repeated exposure. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

**Precautionary statement****Prevention**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

**Response**

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If exposed or concerned: Get medical advice/attention. Collect spillage.

**Storage**

Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 C/122 F.

**Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** Contact with liquefied gas can cause damage (frostbite) due to rapid evaporative cooling.

**3. Composition/information on ingredients****Mixtures**

Chemical name	CAS number	%
Water	7732-18-5	55 - 60
C12-C14 Isoalkanes	68551-19-9	10 - 15

Crystalline silica	14808-60-7	1 - 5	276
D-Limonene	5989-27-5	1 - 5	
Polydimethylsiloxane	63148-62-9	1 - 5	
Morpholine	110-91-8	0.1 - 0.5	
Liquefied petroleum gas	68476-86-8	20 - 30	

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### 4. First-aid measures

**Inhalation** If inhalation of gas/fume/vapor/dust/mist from the material is excessive (air concentration is greater than the TLV or health effects are noticed), immediately remove the affected person(s) to fresh air. If breathing is difficult, give oxygen. Get medical attention, if needed.

**Skin contact** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If frostbite occurs, immerse affected area in warm water (not exceeding 105 F/41 C). Keep immersed for 20 to 40 minutes. Get medical attention immediately. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. If frostbite occurs, immediately flush eyes with plenty of warm water (not exceeding 105 F/41 C) for at least 15 minutes. If easy to do, remove contact lenses. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention immediately.

**Most important symptoms/effects, acute and delayed** Harmful if inhaled. May cause cancer. May cause damage to organs (Lung) through prolonged or repeated exposure. May cause allergic skin reaction. Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ( cold burn ).

**Indication of immediate medical attention and special treatment needed** In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**General information** Take off contaminated clothing and shoes immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

#### 5. Fire-fighting measures

**Suitable extinguishing media** Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media** Do not use a solid water stream as it may scatter and spread fire.

**Specific hazards arising from the chemical** Contents under pressure. Pressurized container may explode when exposed to heat or flame.

**Special protective equipment and precautions for firefighters** Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

**Fire-fighting equipment/instructions** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Containers should be cooled with water to prevent vapor pressure build up. Cool containers exposed to flames with water until well after the fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Water runoff can cause environmental damage.

#### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Methods and materials for containment and cleaning up**

Refer to attached safety data sheets and/or instructions for use. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Move the cylinder to a safe and open area if the leak is irreparable. If possible, turn leaking containers so that gas escapes rather than liquid. Dike the spilled material, where this is possible.

Small Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use water spray to reduce vapors or divert vapor cloud drift. Collect spillage.

Prevent entry into waterways, sewer, basements or confined areas. Clean surface thoroughly to remove residual contamination. Wipe up with absorbent material (e.g. cloth, fleece).

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

**7. Handling and storage**

**Precautions for safe handling**

Wear personal protective equipment. Avoid breathing mists or aerosols of this product. Avoid prolonged exposure. Use with adequate ventilation. Avoid contact with skin and eyes. Wash thoroughly after handling. When using, do not eat, drink or smoke. Pressurized container: Do not pierce or burn, even after use. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Ground and bond containers when transferring material. Do not re-use empty containers. Do not use if spray button is missing or defective. Avoid release to the environment.

**Conditions for safe storage, including any incompatibilities**

Protect from sunlight. Do not expose to temperatures exceeding 50 C/122 F. Contents under pressure. The pressure in sealed containers can increase under the influence of heat. Do not puncture, incinerate or crush. Keep away from heat, sparks and open flame. Keep container tightly closed in a cool, well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Morpholine (CAS 110-91-8)	PEL	70 mg/m3 20 ppm

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value	Form
Crystalline silica (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 millions of particle	Respirable.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Crystalline silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Morpholine (CAS 110-91-8)	TWA	20 ppm	

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Crystalline silica (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
Morpholine (CAS 110-91-8)	STEL	105 mg/m3	
		30 ppm	
		70 mg/m3 20 ppm	

**US. Workplace Environmental Exposure Level (WEEL) Guides**

Components	Type	Value
D-Limonene (CAS 5989-27-5)	TWA	165.5 mg/m3

Components	Type	Value
		30 ppm
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).	
<b>Exposure guidelines</b>	Follow standard monitoring procedures.	
<b>US - California OELs: Skin designation</b>		
Morpholine (CAS 110-91-8)		Can be absorbed through the skin.
<b>US - Minnesota Haz Subs: Skin designation applies</b>		
Morpholine (CAS 110-91-8)		Skin designation applies.
<b>US - Tennessee OELs: Skin designation</b>		
Morpholine (CAS 110-91-8)		Can be absorbed through the skin.
<b>US ACGIH Threshold Limit Values: Skin designation</b>		
Morpholine (CAS 110-91-8)		Can be absorbed through the skin.
<b>US. NIOSH: Pocket Guide to Chemical Hazards</b>		
Morpholine (CAS 110-91-8)		Can be absorbed through the skin.
<b>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</b>		
Morpholine (CAS 110-91-8)		Can be absorbed through the skin.
<b>Appropriate engineering controls</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.	
<b>Individual protection measures, such as personal protective equipment</b>		
<b>Eye/face protection</b>	Wear approved chemical safety goggles. Wear face-shield and protective suit for abnormal processing problems.	
<b>Skin protection</b>		
<b>Hand protection</b>	Chemical resistant gloves are recommended.	
<b>Other</b>	Wear chemical-resistant gloves and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.	
<b>Respiratory protection</b>	Wear positive pressure self-contained breathing apparatus (SCBA). If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.	
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.	
<b>General hygiene considerations</b>	When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practice.	

## 9. Physical and chemical properties

<b>Appearance</b>	Aerosol.
<b>Physical state</b>	Liquid.
<b>Form</b>	Aerosol.
<b>Color</b>	Milky white.
<b>Odor</b>	Characteristic.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	299.84 F ( 148.8 C)
<b>Flash point</b>	-156.0 F (-104.4 C) (Flashpoint for propellant)
<b>Evaporation rate</b>	0.1
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	4.9
<b>Relative density</b>	Not available.

<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Completely soluble in water.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Flash point class</b>	Flammable IB
<b>VOC (Weight %)</b>	< 20 %

## 10. Stability and reactivity

<b>Reactivity</b>	The product is non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Stable under normal temperature conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Incompatible materials</b>	Strong oxidizing agents. Strong acids. Strong bases. Amines.
<b>Hazardous decomposition products</b>	Nitrogen oxides (NOx). Silicon oxides.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Contact with liquid form may cause frostbite.
<b>Inhalation</b>	Harmful if inhaled. Contains a substance which may cause cancer by inhalation. May cause damage to organs (Lung) through prolonged or repeated exposure.
<b>Skin contact</b>	May cause allergic skin reaction. Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ( cold burn ).
<b>Eye contact</b>	Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ( cold burn ).
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Harmful if inhaled. May cause cancer. May cause damage to organs (Lung) through prolonged or repeated exposure. May cause allergic skin reaction.

### Information on toxicological effects

<b>Acute toxicity</b>	Harmful if inhaled.
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Components	Species	Test Results
C12-C14 Isoalkanes (CAS 68551-19-9)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	2 g/kg
<i>Inhalation</i>		
LC50	Rat	5.3 mg/l
<i>Oral</i>		
LD50	Rat	5 mg/l
D-Limonene (CAS 5989-27-5)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	5 g/kg
<i>Oral</i>		
LD50	Rat	4400 mg/kg
Morpholine (CAS 110-91-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	0.5 ml/kg
<i>Oral</i>		
LD50	Guinea pig	0.09 g/kg
	Mouse	720 mg/kg

	Rat	1.05 g/kg
Polydimethylsiloxane (CAS 63148-62-9)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	= 5000 mg/kg
<i>Oral</i>		
LD50	Rat	= 17000 mg/kg
<b>Skin corrosion/irritation</b>	Not classified.	
<b>Serious eye damage/eye irritation</b>	Not classified.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not classified.	
<b>Skin sensitization</b>	May cause allergic skin reaction.	
<b>Germ cell mutagenicity</b>	Not classified.	
<b>Carcinogenicity</b>	May cause cancer. Prolonged breathing of high levels of crystalline silica can cause silicosis. Also, airborne crystalline silica is possibly carcinogenic to humans.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Crystalline silica (CAS 14808-60-7)	1 Carcinogenic to humans.	
D-Limonene (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.	
Morpholine (CAS 110-91-8)	3 Not classifiable as to carcinogenicity to humans.	
<b>NTP Report on Carcinogens</b>		
Crystalline silica (CAS 14808-60-7)	Known To Be Human Carcinogen.	
<b>Reproductive toxicity</b>	Contains no ingredient listed as toxic to reproduction.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs (Lung) through prolonged or repeated exposure.	
<b>Aspiration hazard</b>	Not available.	

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Components	Species	Test Results
D-Limonene (CAS 5989-27-5)		
<b>Aquatic</b>		
Crustacea	EC50	Daphnia 0.42 mg/l, 48 Hours
Fish	LC50	Fathead minnow (Pimephales promelas) 0.619 - 0.796 mg/l, 96 hours
Morpholine (CAS 110-91-8)		
<b>Aquatic</b>		
Fish	LC50	ebra danio (Danio rerio) 1 mg/l, 96 hours
<b>Persistence and degradability</b>	Not available.	
<b>Bioaccumulative potential</b>		
<b>Partition coefficient n-octanol / water (log Kow)</b>		
D-Limonene (CAS 5989-27-5)	4.232	
Morpholine (CAS 110-91-8)	-0.86	
<b>Mobility in soil</b>	The product is water soluble and may spread in water systems.	
<b>Other adverse effects</b>	Not known.	

## 13. Disposal considerations

<b>Disposal instructions</b>	Dispose in accordance with all applicable regulations. Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies.
<b>Hazardous waste code</b>	D001: Waste Flammable material with a flash point <140 F The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Do not re-use empty containers.



**14. Transport information****DOT**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	153, N82
<b>Packaging exceptions</b>	306
<b>Packaging non bulk</b>	None
<b>Packaging bulk</b>	None

**IATA**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>EmS</b>	Not available.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

**15. Regulatory information**

**US federal regulations** This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Morpholine (CAS 110-91-8) LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - Yes  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Not regulated.

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US. Massachusetts RTK - Substance List**

Crystalline silica (CAS 14808-60-7)

Morpholine (CAS 110-91-8)

**US. New Jersey Worker and Community Right-to-Know Act**

Crystalline silica (CAS 14808-60-7)

D-Limonene (CAS 5989-27-5)

Morpholine (CAS 110-91-8)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Crystalline silica (CAS 14808-60-7)

Morpholine (CAS 110-91-8)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65****US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

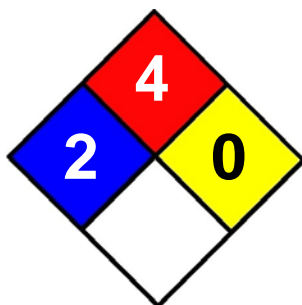
Crystalline silica (CAS 14808-60-7)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
apan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New ealand	New ealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision****Issue date** 16- anuary-2014**Revision date** 10-April-2014**Version #** 02**NFPA Ratings**

**References**

ACGIH  
EPA: AQUIRE database  
NLM: Hazardous Substances Data Base  
US. IARC Monographs on Occupational Exposures to Chemical Agents  
HSDB - Hazardous Substances Data Bank  
IARC Monographs. Overall Evaluation of Carcinogenicity  
National Toxicology Program (NTP) Report on Carcinogens  
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

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**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available.

# SAFETY DATA SHEET

Confirms to OSHA Hazard Communication Standard (CFR 29 1910.1200) HazCom 2012

**GOO  
GONE.**

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**Product:** Goo Gone- 2028, 2030, 2030A, 2050, 2053, 2082, 2086, 2087, 2089, 2090, 2092, 2035CLIP, 2095CLIP, 2129, 2139B, 2166D

**Revision Date:** 23-Aug-2017

## SECTION 1 – IDENTIFICATION

### Product Identifier

**Product Name:** Goo Gone

**Product Code:** 2028, 2030, 2030A, 2050, 2053, 2082, 2086, 2087, 2089, 2090, 2092, 2035CLIP, 2095CLIP, 2129, 2139B, 2166D

### Recommended Use of the Chemical and Restrictions for Use

**Recommended Use:** Cleaner

**Restrictions for Use:** Use only as directed.

### Details of the Supplier

**Manufacturer:** Goo Gone  
755 Tri-State Parkway  
Gurnee, IL 60031  
855-364-8135

### Emergency Phone Number

**24-Hour Number:** 1-800-535-5053

**International:** 1-352-323-3500

## SECTION 2 – HAZARDS IDENTIFICATION

### Classification

Hazard Class	Category
Flammable Liquid	4
Skin Sensitization	1
Aspiration Hazard	1

### Label Elements

**Hazard Symbols(s):**



**Signal Word(s):** Danger

**Hazard Statement(s):** Combustible liquid. May cause an allergic skin reaction. May be fatal if swallowed and enters airways.

**Precautionary Statement(s):** Keep away from flames and hot surfaces. No smoking. Avoid breathing fume/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/eye protection/face protection. If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Other Hazards

None known

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Wt %
Petroleum distillates, hydrotreated light	64742-47-8	60-100
D-Limonene	5989-27-5	1-5
Orange, sweet, extract	8028-48-6	0.5-1.5

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

# SAFETY DATA SHEET

Confirms to OSHA Hazard Communication Standard (CFR 29 1910.1200) HazCom 2012

**GOO  
GONE.**

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**Product:** Goo Gone- 2028, 2030, 2030A, 2050, 2053, 2082, 2086, 2087, 2089, 2090, 2092, 2035CLIP, 2095CLIP, 2129, 2139B, 2166D

**Revision Date:** 23-Aug-2017

## SECTION 4 – FIRST AID MEASURES

### First Aid Measures

**Inhalation:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

**Eye Contact:** Rinse immediately with water for at least 15 minutes. Remove contact lenses, if worn. If irritation persists, seek medical attention immediately.

**Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

**Skin:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash with soap and water. If irritation persists, seek medical attention.

### Most Important Symptoms and Effects (Acute and Delayed)

**Inhalation:** May cause respiratory track irritation.

**Eye Contact:** May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Skin:** May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause sensitization by skin contact.

### Indication of any Immediate Medical Attention and Special Treatment Needed

**Note to Physician:** Treat symptomatically.

## SECTION 5 – FIRE FIGHTING MEASURES

### Extinguishing Media

**Suitable:** Treat for surrounding material.

**Unsuitable:** None known.

### Specific Hazards Arising from Chemical

Products of combustion include but are not limited to: oxides of carbon.

### Protective Equipment and Precautions for Firefighters

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

**Personal Precautions:** Use personal protective equipment as required.

**Environmental Precautions:** See Section 12 for ecological information.

### Methods and Material for Containment and Cleaning Up

Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE). For cleaning up scoop up material and place in a disposal container. Provide ventilation.

## SECTION 7 – HANDLING AND STORAGE

### Precautions for Safe Handling

**Handling:** Keep away from sources of ignition. No smoking. Avoid contact with skin and eyes. Avoid breathing fume/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.

**General Hygiene Advice:** Launder contaminated clothing before use. Wash hands before eating, drinking, or smoking.

# SAFETY DATA SHEET

Conforms to OSHA Hazard Communication Standard (CFR 29 1910.1200) HazCom 2012



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**Product:** Goo Gone- 2028, 2030, 2030A, 2050, 2053, 2082, 2086, 2087, 2089, 2090, 2092, 2035CLIP, 2095CLIP, 2129, 2139B, 2166D

**Revision Date:** 23-Aug-2017

## Conditions for Safe Storage, Including any Incompatibilities

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool, and well-ventilated area. Keep out of reach of children.

**Incompatible Materials:** None known.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

#### **Exposure Guidelines:**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Petroleum distillates, hydrotreated light (64742-47-8)	200 mg/m <sup>3</sup>	100 ppm	Not available
D-Limonene (5989-27-5)	Not available	Not available	Not available
Orange, sweet, extract (8028-48-6)	Not available	Not available	Not available

### Appropriate Engineering Controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

### Individual Protection Measures

**Respiratory Protection:** None required under normal use conditions. In case of insufficient ventilation, wear suitable respiratory equipment.

**Skin and Body Protection:** Wear suitable protective clothing.

**Eye/Face Protection:** Safety glasses or goggles are recommended when using product.

**General Work/Hygienic Practices:** Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Yellow clear liquid

**Odor:** Citrus

**Odor threshold:** Not determined

**pH:** Not determined

**Melting point/freezing point:** Not determined

**Initial boiling point and boiling range:** Not determined

**Flash point:** 85°C (185°F) TCC

**Evaporation rate:** Not determined

**Flammability (solid, gas):** Flammable

**Upper/lower flammability or explosive limits:** Not determined

**Vapor pressure:** Not determined

**Vapor density:** Not determined

**Relative density:** 0.80

**Solubility(ies):** Not determined

**Partition coefficient (n-octanol/water):** Not determined

**Auto-ignition temperature:** Not determined

**Decomposition temperature:** Not determined

**Viscosity:** Not determined

## SECTION 10 – STABILITY AND REACTIVITY

**Reactivity:** Not reactive under normal conditions.

**Chemical stability:** Stable under recommended storage conditions.

# SAFETY DATA SHEET

Confirms to OSHA Hazard Communication Standard (CFR 29 1910.1200) HazCom 2012



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**Product:** Goo Gone- 2028, 2030, 2030A, 2050, 2053, 2082, 2086, 2087, 2089, 2090, 2092, 2035CLIP, 2095CLIP, 2129, 2139B, 2166D

**Revision Date:** 23-Aug-2017

**Possibility of hazardous reactions:** None under normal use.

**Conditions to avoid:** Heat. Incompatible materials. Sources of ignition.

**Incompatible materials:** None known.

**Hazardous decomposition products:** May include and are not limited to: oxides of carbon.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

**Likely Routes of Exposure:** Inhalation, skin contact, eye contact, ingestion

### Information Related to Physical, Chemical, and Toxicological Effects

See section 4 of this SDS.

### Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

**Carcinogenicity:** NTP: No IARC: No OSHA: No

### Numerical Measures of Toxicity

Product	
ATE (oral)	>2000 mg/kg, rat
ATE (dermal)	>2000 mg/kg, rabbit
ATE (inhalation)	Not available

### **Component Information:**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Petroleum distillates, hydrotreated light (64742-47-8)	>5000 mg/kg, rat	>2000 mg/kg, rabbit	>5.2 mg/l/4h, rat
D-Limonene (5989-27-5)	4400 mg/kg, rat	>5000 mg/kg, rabbit	Not available
Orange, sweet, extract (8028-48-6)	>5000 mg/kg, rat	>5000 mg/kg, rabbit	Not available

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** Not established

**Persistence and degradability:** Not established

**Bioaccumulative potential:** Not established

**Mobility in soil:** No additional information available

**Other adverse effects:** No additional information available.

## SECTION 13 – DISPOSAL CONSIDERATIONS

See section 8 of this SDS for exposure controls and personal protection.

Dispose of the product and container in accordance with all applicable local, state, and federal regulations.

## SECTION 14 – TRANSPORT INFORMATION

**Note:** Classification changes based on quantity, packaging, and method of shipment. See current shipping paper for most up to date shipping information.

**DOT (Ground):** Not Regulated- See 49 CFR 173.150(f)(2) as the product is not bulk packaged.

**IATA (Air):** Not Regulated

**IMDG (Vessel):** Not Regulated

## SECTION 15 – REGULATORY INFORMATION

All ingredients in this product are listed or are excluded from listing on the US Toxic Substances Act (TSCA) Chemical Substance Inventory.

# SAFETY DATA SHEET

Confirms to OSHA Hazard Communication Standard (CFR 29 1910.1200) HazCom 2012



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**Product:** Goo Gone- 2028, 2030, 2030A, 2050, 2053, 2082, 2086, 2087, 2089, 2090, 2092, 2035CLIP, 2095CLIP, 2129, 2139B, 2166D

**Revision Date:** 23-Aug-2017

This product is labeled in accordance with regulations administered by the Consumer Product Safety Commission (CPSC). The use pattern and exposure in the workplace are generally not consistent with those experienced by consumers. The requirements of the Occupational Safety and Health Administration (OSHA) applicable to this Safety Data Sheet differ from the requirements of the CPSC and as a result, this SDS may contain additional health hazard information not pertinent to consumer use and not found on the product label.

## SECTION 16 – OTHER INFORMATION

**Issue Date:** 23-Aug-2017

**Revision Date:** 23-Aug-2017

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designed and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**





## SAFETY DATA SHEET

### Solopol Classic

#### 1. Identification

##### Product identifier

**Product name** Solopol Classic  
**Product number** 30384-US,PN88313406-US,PN98318706-US,32140-US,34981-US,34868-US  
**Container size** 1/2 GAL,2000 ML,4000 ml,250 ml

##### Recommended use of the chemical and restrictions on use

**Application** Hand Wash

##### Details of the supplier of the safety data sheet

**Supplier** Deb USA, Inc.  
2815 Coliseum Centre Drive, Suite 600  
Charlotte, North Carolina 28217 USA  
800-248-7190

**Manufacturer** Deb-Stoko USA LLC  
2408 Doyle Street  
Greensboro NC 27408 USA

##### Emergency telephone number

**Emergency telephone** (800) 424-9300 CHEMTREC (North America) (703) 527-3887 CHEMTREC (International, call collect)

#### 2. Hazard(s) identification

##### Classification of the substance or mixture

**OSHA Regulatory Status** This Product is Not Hazardous under the OSHA Hazard Communication Standard.  
**Physical hazards** Not Classified  
**Health hazards** Not Classified  
**Environmental hazards** Not Classified

##### Label elements

**Hazard statements** NC Not Classified

#### 3. Composition/information on ingredients

##### Mixtures

## Solopol Classic

<b>Inci</b>	Aqua (Water) Juglans Regia (Walnut) Shell Powder Sodium Laureth Sulfate Sulfated Castor Oil Cocamidopropyl Betaine Sodium Chloride Oleic Acid Citric Acid Titanium Dioxide Xanthan Gum Cellulose Gum Parfum (Fragrance) Potassium Sorbate 2-Bromo-2-Nitropropane-1,3-Diol
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### 4. First-aid measures

#### Description of first aid measures

<b>Ingestion</b>	Get medical attention immediately.
<b>Skin Contact</b>	Intended as a cosmetic hand cleaner. Non-toxic.
<b>Eye contact</b>	In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.
<b>Protection of first aiders</b>	None

#### Most important symptoms and effects, both acute and delayed

<b>General information</b>	None.
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### 5. Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing media** Water spray, foam, dry powder or carbon dioxide.

#### Special hazards arising from the substance or mixture

**Specific hazards** Not applicable.

#### Advice for firefighters

**Protective actions during firefighting** No specific firefighting precautions known.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Take care as floors and other surfaces may become slippery.

#### Environmental precautions

**Environmental precautions** The product is not expected to be toxic to aquatic organisms.

#### Methods and material for containment and cleaning up

**Methods for cleaning up** Shovel into dry containers. Cover and move the containers. Flush the area with water.

### 7. Handling and storage

#### Precautions for safe handling

**Usage precautions** no special requirements

## Solopol Classic

### Conditions for safe storage, including any incompatibilities

**Storage precautions** no special requirements

### Specific end uses(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### 8. Exposure Controls/personal protection

#### Exposure controls

**Eye/face protection** No specific eye protection required during normal use.

**Hand protection** Not applicable.

**Hygiene measures** No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

**Appearance** Paste

**Color** Beige.

**Odor** Fragrant

**pH** 4.9 - 5.3 (10%)

**Relative density** approx. 1.05

### 10. Stability and reactivity

**Reactivity** Stable under normal conditions

**Stability** Stable at normal ambient temperatures.

**Possibility of hazardous reactions** No information available

**Conditions to avoid** Keep at temperature not exceeding 40°C.

**Materials to avoid** No information available

### 11. Toxicological information

#### Information on toxicological effects

**Toxicological effects** No information available.

### 12. Ecological Information

#### Toxicity

**Toxicity** Not applicable.

#### Persistence and degradability

**Persistence and degradability** No data available.

#### Bioaccumulative potential

**Bio-Accumulative Potential** Not known.

## Solopol Classic

### Mobility in soil

**Mobility** Not known.

### Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### Other adverse effects

**Other adverse effects** Not known.

## 13. Disposal considerations

### Waste treatment methods

**General information** Dispose of waste product or used containers in accordance with local regulations

## 14. Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

### UN Number

Not applicable.

### UN proper shipping name

Not applicable.

### Transport hazard class(es)

No transport warning sign required.

### Packing group

Not applicable.

### Environmental hazards

#### **Environmentally Hazardous Substance**

No.

### Special precautions for user

Not applicable.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

**Regulatory Status** This product is manufactured and labeled in compliance with the Federal Food, Drug, and Cosmetic Act, and is exempt from the labeling requirements of the OSHA Hazard Communication Standard.

## 16. Other information

**Revision date** 5/28/2015

**Revision** 2

**Supersedes date** 4/16/2015

## Solopol Classic

**SDS No.** 20881

## SAFETY DATA SHEET


**PURELL® PAL™ and PURELL® Advanced Instant Hand Sanitizer**

Version 1.3	Revision Date: 04/04/2018	MSDS Number: 46955-00003	Date of last issue: 03/19/2015 Date of first issue: 01/13/2015
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**SECTION 1. IDENTIFICATION**

Product name : PURELL® PAL™ and PURELL® Advanced Instant Hand Sanitizer

**Manufacturer or supplier's details**

Company name of supplier : GOJO Industries, Inc.  
 Address : One GOJO Plaza, Suite 500  
 Akron OH 44311  
 Telephone : 1 (330) 255-6000  
 Emergency telephone : 1-800-424-9300 CHEMTREC

**Recommended use of the chemical and restrictions on use**

Recommended use : Hand Sanitizer

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

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**SECTION 2. HAZARDS IDENTIFICATION**
**GHS Classification**

Flammable liquids : Category 3  
 Eye irritation : Category 2A

**GHS Label element**

Hazard pictograms :  

Signal Word : Warning

## SAFETY DATA SHEET


**PURELL® PAL™ and PURELL® Advanced Instant Hand Sanitizer**

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Hazard Statements : H226 Flammable liquid and vapor.  
 H319 Causes serious eye irritation.

Precautionary Statements : **Prevention:**  
 P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
 P233 Keep container tightly closed.  
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
 P242 Use only non-sparking tools.  
 P243 Take precautionary measures against static discharge.  
 P264 Wash skin thoroughly after handling.  
 P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.  
**Storage:**  
 P403 + P235 Store in a well-ventilated place. Keep cool.  
**Disposal:**  
 P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

Vapors may form explosive mixture with air.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous ingredients**

Chemical Name	CAS-No.	Concentration (%)
Ethanol	64-17-5	>= 50 - < 70
Propan-2-ol	67-63-0	>= 1 - < 5

**SECTION 4. FIRST AID MEASURES**

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
 When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.  
 Get medical attention if symptoms occur.

In case of skin contact : Wash with water and soap as a precaution.  
 Get medical attention if symptoms occur.

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In case of eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.
If swallowed	: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	: Causes serious eye irritation.
Protection of first-aiders	: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
Notes to physician	: Treat symptomatically and supportively.

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**SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media	: Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO <sub>2</sub> )
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire fighting	: Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.
Hazardous combustion products	: Carbon oxides
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**



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- |   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Remove all sources of ignition.<br>Use personal protective equipment.<br>Follow safe handling advice and personal protective equipment recommendations.   |
| Environmental precautions   | : Discharge into the environment must be avoided.<br>Prevent further leakage or spillage if safe to do so.<br>Prevent spreading over a wide area (e.g. by containment or oil barriers).<br>Retain and dispose of contaminated wash water.<br>Local authorities should be advised if significant spillages cannot be contained.  |
| Methods and materials for containment and cleaning up               | : Non-sparking tools should be used.<br>Soak up with inert absorbent material.<br>Suppress (knock down) gases/vapors/mists with a water spray jet.<br>For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.<br>Clean up remaining materials from spill with suitable absorbent.<br>Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.<br>Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. |

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**SECTION 7. HANDLING AND STORAGE**

- |                             |   |
|-----------------------------|---|
| Technical measures          | : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.   |
| Local/Total ventilation     | : Use with local exhaust ventilation.<br>Use only in an area equipped with explosion proof exhaust ventilation.   |
| Advice on safe handling     | : Do not breathe vapors or spray mist.<br>Do not swallow.<br>Do not get in eyes.<br>Avoid prolonged or repeated contact with skin.<br>Handle in accordance with good industrial hygiene and safety practice.<br>Non-sparking tools should be used.<br>Keep container tightly closed.<br>Keep away from heat and sources of ignition.<br>Take precautionary measures against static discharges.<br>Take care to prevent spills, waste and minimize release to the environment. |
| Conditions for safe storage | : Keep in properly labeled containers.  |

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Keep tightly closed.  
 Keep in a cool, well-ventilated place.  
 Store in accordance with the particular national regulations.  
 Keep away from heat and sources of ignition.

Materials to avoid : Do not store with the following product types:  
 Strong oxidizing agents  
 Organic peroxides  
 Flammable solids  
 Pyrophoric liquids  
 Pyrophoric solids  
 Self-heating substances and mixtures  
 Substances and mixtures which in contact with water emit flammable gases  
 Explosives  
 Gases

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Ingredients with workplace control parameters**

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	OSHA Z-1
		STEL	1,000 ppm	ACGIH
Propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m <sup>3</sup>	NIOSH REL
		ST	500 ppm 1,225 mg/m <sup>3</sup>	NIOSH REL
		TWA	400 ppm 980 mg/m <sup>3</sup>	OSHA Z-1

**Biological occupational exposure limits**

Ingredients	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of work-week	40 mg/l	ACGIH BEI

**Engineering measures** : Minimize workplace exposure concentrations.  
 Use only in an area equipped with explosion proof exhaust ventilation.  
 Use with local exhaust ventilation.

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**Personal protective equipment**

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
- Hand protection
- Material : Impervious gloves
- Material : Flame retardant gloves
- Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
- Eye protection : Wear the following personal protective equipment:  
Safety goggles
- Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Wear the following personal protective equipment:  
Flame retardant antistatic protective clothing.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.  
When using do not eat, drink or smoke.  
Wash contaminated clothing before re-use.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : liquid
- Color : clear, Colorless to pale yellow

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Odor	:	citrus
Odor Threshold	:	No data available
pH	:	6.0 - 9.2
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	25 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Density	:	0.89 g/cm <sup>3</sup>
Solubility(ies)		
Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	No data available
Decomposition temperature	:	The substance or mixture is not classified self-reactive.
Viscosity		
Viscosity, kinematic	:	1,000 - 35,000 mm <sup>2</sup> /s (20 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

---

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reac-	:	Flammable liquid and vapor.

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tions	Vapors may form explosive mixture with air. Can react with strong oxidizing agents.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: No hazardous decomposition products are known.

**SECTION 11. TOXICOLOGICAL INFORMATION**
**Information on likely routes of exposure**

Inhalation  
Skin contact  
Ingestion  
Eye contact

**Acute toxicity**

Not classified based on available information.

**Product:**

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

**Ingredients:**
**Ethanol:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 124.7 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor

**Propan-2-ol:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 72.6 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Product:**

Result: No skin irritation

**Ingredients:**
**Ethanol:**

Species: Rabbit  
Method: OECD Test Guideline 404

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Result: No skin irritation

**Propan-2-ol:**

Species: Rabbit

Result: No skin irritation

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Ingredients:**
**Ethanol:**

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Method: OECD Test Guideline 405

**Propan-2-ol:**

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

**Respiratory or skin sensitization**

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

**Product:**

Assessment: Does not cause skin sensitization.

**Ingredients:**
**Ethanol:**

Test Type: Local lymph node assay (LLNA)

Routes of exposure: Skin contact

Species: Mouse

Result: negative

**Propan-2-ol:**

Test Type: Buehler Test

Routes of exposure: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: negative

**Germ cell mutagenicity**

Not classified based on available information.

**Ingredients:**
**Ethanol:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)  
Species: Mouse  
Application Route: Ingestion

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Result: negative

**Propan-2-ol:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Intraperitoneal injection  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**Ingredients:****Propan-2-ol:**

Species: Rat  
Application Route: inhalation (vapor)  
Exposure time: 104 weeks  
Method: OECD Test Guideline 451  
Result: negative

**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified based on available information.

**Ingredients:****Ethanol:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Mouse  
Application Route: Ingestion  
Method: OECD Test Guideline 416  
Result: negative

**Propan-2-ol:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development

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Species: Rat  
Application Route: Ingestion  
Result: negative

**STOT-single exposure**

Not classified based on available information.

**Ingredients:**
**Propan-2-ol:**

Assessment: May cause drowsiness or dizziness.

**STOT-repeated exposure**

Not classified based on available information.

**Repeated dose toxicity**
**Ingredients:**
**Ethanol:**

Species: Rat  
NOAEL: 2,400 mg/kg  
Application Route: Ingestion  
Exposure time: 2 y

**Propan-2-ol:**

Species: Rat  
NOAEL: 5000 ppm  
Application Route: inhalation (vapor)  
Exposure time: 104 w  
Method: OECD Test Guideline 413

**Aspiration toxicity**

Not classified based on available information.

---

**SECTION 12. ECOLOGICAL INFORMATION**
**Ecotoxicity**
**Ingredients:**
**Ethanol:**

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates	:	NOEC (Daphnia magna (Water flea)): 9.6 mg/l Exposure time: 9 d



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(Chronic toxicity)

Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 32.1 mg/l  
Exposure time: 0.25 h

**Propan-2-ol:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l  
Exposure time: 24 h

Toxicity to algae : ErC50 (Scenedesmus quadricauda (Green algae)): > 1,800 mg/l  
Exposure time: 8 d

Toxicity to bacteria : EC50 (Pseudomonas putida): > 1,050 mg/l  
Exposure time: 16 h

**Persistence and degradability****Ingredients:****Ethanol:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 84 %  
Exposure time: 20 d

**Propan-2-ol:**

Biodegradability : Result: rapidly degradable

**Bioaccumulative potential****Ingredients:****Ethanol:**

Partition coefficient: n-octanol/water : log Pow: -0.35

**Propan-2-ol:**

Partition coefficient: n-octanol/water : log Pow: 0.05

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

## SAFETY DATA SHEET


**PURELL® PAL™ and PURELL® Advanced Instant Hand Sanitizer**

Version	Revision Date:	MSDS Number:	Date of last issue: 03/19/2015
1.3	04/04/2018	46955-00003	Date of first issue: 01/13/2015

Contaminated packaging : Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not burn, or use a cutting torch on, the empty drum.

**SECTION 14. TRANSPORT INFORMATION**
**International Regulation**
**UNRTDG**

UN number : UN 1987  
Proper shipping name : ALCOHOLS, N.O.S.  
(Ethanol, Propan-2-ol)  
Class : 3  
Packing group : III  
Labels : 3

**IATA-DGR**

UN/ID No. : UN 1987  
Proper shipping name : Alcohols, n.o.s.  
(Ethanol, Propan-2-ol)  
Class : 3  
Packing group : III  
Labels : Flammable Liquids  
Packing instruction (cargo aircraft) : 366  
Packing instruction (passenger aircraft) : 355

**IMDG-Code**

UN number : UN 1987  
Proper shipping name : ALCOHOLS, N.O.S.  
(Ethanol, Propan-2-ol)  
Class : 3  
Packing group : III  
Labels : 3  
EmS Code : F-E, S-D  
Marine pollutant : no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation**
**49 CFR**

UN/ID/NA number : UN 1987  
Proper shipping name : ALCOHOLS, N.O.S.  
Class : 3  
Packing group : III

## SAFETY DATA SHEET


**PURELL® PAL™ and PURELL® Advanced Instant Hand Sanitizer**

Version	Revision Date:	MSDS Number:	Date of last issue: 03/19/2015
1.3	04/04/2018	46955-00003	Date of first issue: 01/13/2015

Labels	:	FLAMMABLE LIQUID
ERG Code	:	127
Marine pollutant	:	no

**SECTION 15. REGULATORY INFORMATION**
**EPCRA - Emergency Planning and Community Right-to-Know**
**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

<b>SARA 311/312 Hazards</b>	:	Fire Hazard Acute Health Hazard			
<b>SARA 302</b>	:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.			
<b>SARA 313</b>	:	The following components are subject to reporting levels established by SARA Title III, Section 313:			
		<table border="0"> <tr> <td>Propan-2-ol</td> <td>67-63-0</td> <td>3.013 %</td> </tr> </table>	Propan-2-ol	67-63-0	3.013 %
Propan-2-ol	67-63-0	3.013 %			

**US State Regulations**
**Pennsylvania Right To Know**

Ethanol	64-17-5	50 - 70 %
Water	7732-18-5	30 - 50 %
Propan-2-ol	67-63-0	1 - 5 %

**New Jersey Right To Know**

Ethanol	64-17-5	50 - 70 %
Water	7732-18-5	30 - 50 %
Propan-2-ol	67-63-0	1 - 5 %

**California Prop 65** This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

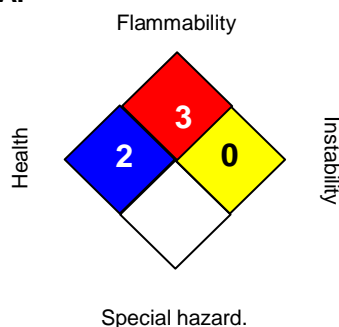
**The ingredients of this product are reported in the following inventories:**

AICS : All ingredients listed or exempt.

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

## SAFETY DATA SHEET


**PURELL® PAL™ and PURELL® Advanced Instant Hand Sanitizer**
Version  
1.3Revision Date:  
04/04/2018MSDS Number:  
46955-00003Date of last issue: 03/19/2015  
Date of first issue: 01/13/2015**SECTION 16. OTHER INFORMATION****Further information****NFPA:****HMIS III:**

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>3</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

**Full text of other abbreviations**

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	: ACGIH - Biological Exposure Indices (BEI)
NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA Z-1	: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	: 8-hour, time-weighted average
ACGIH / STEL	: Short-term exposure limit
NIOSH REL / TWA	: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	: STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA	: 8-hour time weighted average

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Revision Date : 03/19/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8



## 1. Identification

<b>Product identifier</b>	<b>Hercules High Heat Furnace Cement</b>
<b>Other means of identification</b>	
<b>Product code</b>	7330E
<b>Synonyms</b>	Part Numbers: Regular- 35503, 35504, 35509, 35515, 35610, Heavy- 35521, 35526
<b>Recommended use</b>	Furnace Cement
<b>Recommended restrictions</b>	Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

### Manufacturer/Importer/Supplier/Distributor information

**Company Name**

**Address**

**Telephone**

**E-mail**

**Transport Emergency**

**Emergency First Aid**

**Contact person**

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Causes severe skin burns and eye damage.

### Precautionary statement

**Prevention** Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.

**Storage** Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
Kaolin	1332-58-7	10-30
Nepheline Syenite	37244-96-5	10-30
Sodium silicate	1344-09-8	10-30
Mica	12001-26-2	5-10
Wollastonite	13983-17-0	5-10
Crystalline silica (Quartz)	14808-60-7	1-5
Microspheres	68131-74-8	0-3
Other components below reportable levels		24.12

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Wash off with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Powder. Foam. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
--	--

**Methods and materials for containment and cleaning up**

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

**Environmental precautions**

**7. Handling and storage**

**Precautions for safe handling**

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
Mica (CAS 12001-26-2)	TWA	20 mppcf	

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable fraction.
Mica (CAS 12001-26-2)	TWA	3 mg/m3	Respirable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
Kaolin (CAS 1332-58-7)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
Mica (CAS 12001-26-2)	TWA	3 mg/m3	Respirable.

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear safety glasses with side shields (or goggles) and a face shield.

**Skin protection**

**Hand protection**

Wear appropriate chemical resistant gloves.

**Other**

Wear appropriate chemical resistant clothing.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. 312

**9. Physical and chemical properties**

**Appearance**

**Physical state** Liquid.  
**Form** Paste.  
**Color** Tan. or Black.

**Odor** Odorless.

**Odor threshold** Not available.

**pH** 11 - 13

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 212 F (100 C)

**Flash point** 212.0 F ( 100.0 C)

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not available.

**Vapor density** Not available.

**Relative density** 1.95 +/- 0.03

**Solubility(ies)**

**Solubility (water)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Other information**

**VOC (Weight %)** 0 g/l

**10. Stability and reactivity**

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Contact with incompatible materials.

**Incompatible materials** Strong oxidizing agents.

**Hazardous decomposition products** No hazardous decomposition products are known.

**11. Toxicological information**

**Information on likely routes of exposure**

**Inhalation** May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

**Skin contact** Causes severe skin burns.

**Eye contact** Causes serious eye damage.



<b>Ingestion</b>	Causes digestive tract burns.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	Not available.
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) Risk of cancer cannot be excluded with prolonged exposure.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Crystalline silica (Quartz) (CAS 14808-60-7)	1 Carcinogenic to humans.
Wollastonite (CAS 13983-17-0)	3 Not classifiable as to carcinogenicity to humans.
<b>NTP Report on Carcinogens</b>	
Crystalline silica (Quartz) (CAS 14808-60-7)	Known To Be Human Carcinogen.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
<b>12. Ecological information</b>	
<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
<b>13. Disposal considerations</b>	
<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

## 15. Regulatory information

**US federal regulations** This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
One or more components are not listed on TSCA.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** No

### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. Massachusetts RTK - Substance List

Crystalline silica (Quartz) (CAS 14808-60-7)  
Kaolin (CAS 1332-58-7)  
Mica (CAS 12001-26-2)

#### US. New Jersey Worker and Community Right-to-Know Act

Crystalline silica (Quartz) (CAS 14808-60-7)  
Kaolin (CAS 1332-58-7)  
Mica (CAS 12001-26-2)

#### US. Pennsylvania Worker and Community Right-to-Know Law

Crystalline silica (Quartz) (CAS 14808-60-7)  
Kaolin (CAS 1332-58-7)  
Mica (CAS 12001-26-2)

#### US. Rhode Island RTK

Not regulated.

**US. California Proposition 65**

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WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Crystalline silica (Quartz) (CAS 14808-60-7)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
apan	Inventory of Existing and New Chemical Substances (ENCS)	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	22-April-2015
<b>Revision date</b>	-
<b>Version #</b>	01
<b>HMIS® ratings</b>	Health: 3 Flammability: 0 Physical hazard: 0

**NFPA ratings****Disclaimer**

HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

## 1 Identification

- **Product identifier**
- **Trade name:** Hydraulic Cement
- **Article number:** 83-307979
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- **Application of the substance / the mixture**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Unitex® Tel: (800) 821-5846  
 3101 Gardner Fax: (816) 483-3149  
 Kansas city, MO 64120
  
- **Emergency Telephone Number:** Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call (703) 527-3887. Collect calls are accepted.
- **Information department:** Environmental, Health, and Safety department.

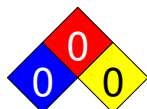
## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Carc. 1A H350 May cause cancer.
- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Quartz (SiO<sub>2</sub>)
- **Hazard statements**  
May cause cancer.
- **Precautionary statements**  
Wear protective gloves/protective clothing/eye protection/face protection.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
IF exposed or concerned: Get medical advice/attention.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

Printing date 05/27/2015

Reviewed on 05/27/2015

**Trade name: Hydraulic Cement**

(Contd. of page 1)

**· HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
PHYSICAL HAZARD	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**3 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

**· Dangerous components:**

14808-60-7	Quartz (SiO <sub>2</sub> )	25-50%
65997-15-1	Cement, portland, chemicals	10-25%
26499-65-0	Calcium sulfate	≤ 5%
7778-18-9	calcium sulphate, natural	≤ 5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

**4 First-aid measures**

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Seek medical treatment.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**  
Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** No special measures required.

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**Trade name: Hydraulic Cement**

(Contd. of page 2)

- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

### 14808-60-7 Quartz (SiO<sub>2</sub>)

PEL	see Quartz listing
REL	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m <sup>3</sup> *as respirable fraction

### 65997-15-1 Cement, portland, chemicals

PEL	Long-term value: 50 mppcf or 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV	Long-term value: 1* mg/m <sup>3</sup> E; *as respirable fraction

### 26499-65-0 Calcium sulfate

PEL	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction

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**Trade name: Hydraulic Cement**

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**7778-18-9 calcium sulphate, natural**

**PEL** Long-term value: 15\* 5\*\* mg/m<sup>3</sup>  
\*total dust \*\*respirable fraction

**REL** Long-term value: 10\* 5\*\* mg/m<sup>3</sup>  
\*total dust \*\*respirable fraction

**TLV** Long-term value: 10\* mg/m<sup>3</sup>  
\*as inhalable fraction

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Wear appropriate eye protection to prevent eye contact.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
  - Form:** Solid
  - Color:** According to product specification
  - **Odor:** Characteristic
  - **Odour threshold:** Not determined.
- **pH-value:** Not applicable.
- **Change in condition**
  - Melting point/Melting range:** Undetermined.
  - Boiling point/Boiling range:** > 999 °C (> 1830 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not determined.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.

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· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density at 20 °C (68 °F):</b>	2.90949 g/cm <sup>3</sup> (24.28 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Soluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Solids content:</b>	100.0 %
· <b>Other information</b>	No further relevant information available.
· <b>Volatile Organic Compounds:</b>	Not determined

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect known.
- **on the eye:** No irritating effect known.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	1
13463-67-7	titanium dioxide	2B
1309-37-1	diiron trioxide	3

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· **NTP (National Toxicology Program)**

14808-60-7 Quartz (SiO<sub>2</sub>)

K

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of as normal garbage. Do not allow product to reach sewage system.  
It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to Federal, State, and Local regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- |   |               |
|---|---------------|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, ADN, IMDG, IATA</b></li> </ul>  | Not Regulated |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, ADR, ADN, IMDG, IATA</b></li> </ul>                            | Not Regulated |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT, ADR, ADN, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul> | Not Regulated |
| <ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>   | Not Regulated |

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US

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**Trade name: Hydraulic Cement**

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· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>U.S. Domestic Ground Shipments:</b>	Same as listed for Standard Shipments above.
· <b>U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments:</b>	Same as listed for Standard Shipments above.
· <b>Emergency Response Guide (ERG) Number:</b>	Not determine
· <b>UN "Model Regulation":</b>	-

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

1344-28-1	aluminium oxide	≤1%
554-13-2	lithium carbonate	≤0.1%

· **TSCA (Toxic Substances Control Act):**

14808-60-7	Quartz (SiO <sub>2</sub> )
65997-16-2	Cement, alumina, chemicals
65997-15-1	Cement, portland, chemicals
7778-18-9	calcium sulphate, natural
1344-28-1	aluminium oxide
1305-62-0	calcium dihydroxide
1317-65-3	Limestone
554-13-2	lithium carbonate
13463-67-7	titanium dioxide
1309-37-1	diiron trioxide

· **Proposition 65**

· **Chemicals known to the State of California (Prop. 65) to cause cancer:**

14808-60-7	Quartz (SiO <sub>2</sub> )
13463-67-7	titanium dioxide

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

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**Trade name: Hydraulic Cement**

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· **Chemicals known to cause developmental toxicity:**

554-13-2	lithium carbonate
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· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

14808-60-7	Quartz (SiO <sub>2</sub> )	A2
1344-28-1	aluminium oxide	A4
13463-67-7	titanium dioxide	A4
1309-37-1	diiron trioxide	A4

· **MAK (German Maximum Workplace Concentration)**

14808-60-7	Quartz (SiO <sub>2</sub> )	1
1344-28-1	aluminium oxide	2
13463-67-7	titanium dioxide	3A

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

14808-60-7	Quartz (SiO <sub>2</sub> )
13463-67-7	titanium dioxide

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Quartz (SiO<sub>2</sub>)

· **Hazard statements**

May cause cancer.

· **Precautionary statements**

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

The provided information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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**Safety Data Sheet**  
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**Trade name: Hydraulic Cement**

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*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing SDS:** Environmental, Health & Safety Department

· **Contact:** Environmental, Health & Safety Manager

· **Date of preparation / last revision** 05/27/2015 / 97

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*Carc. 1A: Carcinogenicity, Hazard Category 1A*

## 1: Identification

<b>PRODUCT IDENTIFICATION:</b>	<b>Fiberglass building insulation products—cured batts, rolls, and board; laminated cured insulation products; fiberglass cured blowing wool insulation (Supercube II®, Supercube HD, Shake &amp; Rake)</b>
<b>COMPANY:</b>	Knauf Insulation 979 Batesville Rd. Suite B Greer, SC 29651 800-609-8373
<b>CONTACT:</b>	Health, Safety and Environment 517-630-2072
<b>24-HOUR EMERGENCY RESPONSE INFORMATION:</b>	Chemtrec 1-800-424-9300

## 2: Hazard Identification


**WARNING**

Eye, skin and respiratory tract irritant.

### Hazard Statement

**Inhalation:** Fiberglass wool may cause mechanical irritation of the upper respiratory tract.

**Skin Contact:** Direct contact with the skin may cause mechanical irritation.

**Eye Contact:** Direct contact with the eyes may cause mechanical irritation.

## 3: Composition/Information On Ingredients

INGREDIENTS	HAZARD	CAS NO.	%	TLV*
Fibrous Glass	Nuisance Dust	65997-17-3	90-100%	1 f/cc
Cured Organic Binding Material	N/A	25104-55-6	10-0%	
Formaldehyde		50-00-0	<0.01%	
Phenol		108-95-2	0.02%	
Ammonia		7664-41-7	0.03%	
Dedusting Oil	N/A	N/A	<1%	

\*The TWA TLV of 1 f/cc is a protection standard voluntarily adopted by the fiberglass industry and is a recommendation of ACGIH and California's ACAC.

Adhesives used to adhere facings include:

#### Kraft/Foil Faced products:

Mineral Oil, white	Mild Irritant	8042-47-5	5-10
Wax, polyethylene	Mild Irritant	9002-88-4	1-5
Waxes, paraffin	Mild Irritant	8002-74-2	1-5

#### Vinyl faced laminated products:

Aluminum nitrate -9-hydrate	Mild Irritant	7784-27-2	1-5
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## 4: First Aid Measures

**Skin Contact:** Do not rub. Wash with soap and water. Use skin cream to sooth irritation. Wash clothes separately. A shower after work is recommended. Irritation typically will not persist if good personal hygiene habits are followed.

**Eye Contact:** Flush with running water for at least 15 minutes. Using sterile eye wash, flush foreign bodies from eyes.

**Inhalation:** Remove from exposure.

If irritation persists in any of these situations, a physician should be consulted.

## 5: Fire-Fighting Measures

**Flash Point:** N/A

**Flammability Limits:** N/A

**Auto-Ignition Temperance:** N/A

**Extinguishing Media:** Water, foam, dry chemical

**Special Fire-fighting Procedure:** None

**Unusual Fire Hazards:** Fiberglass insulation is a non-flammable product. The kraft and foil facing and packaging material will burn; caution should be used when working close to the facing or packaged material with open flame. Chemicals in adhesives, facings or plastic packaging products that do not present a health hazard under normal conditions may be released during a fire. Toxic fumes and gases that may result from incomplete combustion include carbon monoxide, hydrogen chloride and low-level cyanides. In case of overexposure, remove to fresh air. If breathing is difficult, administer oxygen and consult a physician.

## 6: Accidental Release Measures

**Cleanup:** Avoid dust-generating means of clean-up.

## 7: Handling And Storage

Store faced or packaged material away from sources of ignition and have fire-fighting equipment available.

## 8: Exposure Controls/Personal Protection

**Exposure Limits:** Inhalation. Fiberglass wool may cause mechanical irritation of the upper respiratory tract. Use of a 2-strap NIOSH-Approved N-95 Filtering Facepiece respirator such as a 3M model 8210 or equivalent is recommended when handling loose-fill, when exposure is unknown or when fibers exceed the TLV of 1 f/cc. Operations which generate high airborne fiber concentrations (over 10 times the TLV) require additional respiratory protection.

**Skin Contact:** Direct contact with the skin may cause mechanical irritation. Long sleeves, loose fitting clothing, gloves, and eye protection are recommended. If irritation occurs, wash exposed areas with soap and water after handling. Wash clothes separately and rinse out washer after each use. Following a thorough review of all the medical data available, the International Agency for Research on Cancer (IARC) has classified glass wool insulation as Group #3, "not classifiable as to carcinogenicity to humans." IARC has stated there is "no evidence of increased risks of lung cancer or of mesothelioma... from occupational exposures during the manufacture of these materials, and inadequate evidence overall of any cancer risk."

<b>Ingredients</b>	<b>OSHA Permissible Exposure Levels</b>
Fibrous Glass	TWA (Total Dust) = 15 mg/m <sup>3</sup> TWA (Respirable Dust) = 5 mg/m <sup>3</sup>
Cured Organic Binding Material	N/A
Formaldehyde	TWA=1 ppm (.5 ppm Action Level)
Phenol	TWA=5 ppm, 19 mg/m <sup>3</sup> (skin)
Ammonia	TWA 50 ppm, 35 mg/m <sup>3</sup>
Dedusting Oil	N/A

Adhesives used to adhere facings include:

Kraft/Foil Faced products:

Mineral Oil, white	TWA Mist = 5 mg/m <sup>3</sup>
Wax, polyethylene	TWA (fume) = 2 mg/m <sup>3</sup>
Waxes, paraffin	TWA (fume) = 2 mg/m <sup>3</sup> and hydrocarbons

Vinyl faced laminated products:

Aluminum nitrate -9-hydrate	N/A
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## 9: Accidental Release Measures

<b>Boiling Point (°f):</b> N/A	<b>Specific Gravity (H<sub>2</sub>O) =</b> 1: 2.6
<b>Vapor Pressure (mm Hg.):</b> N/A	<b>Percent Volatile By Volume:</b> <1%
<b>Vapor Density (Air=1):</b> N/A	<b>Solubility in Water:</b> None
<b>Evaporation Rate:</b> N/A	

**Appearance and Odor:** Resilient or solid structure containing glass fibers and binding materials used as blankets, boards, or loose-fill insulation. May have slight binder odor.

## 10: Stability And Reactivity

**Stability:** Stable      **Incompatibility:** None      **Hazardous Polymerization:** Will not occur

## 11: Toxicological Information

Data not available.

This material is not regulated under hazardous waste regulations.

**13: Disposal Considerations**

Dispose of scrap material according to federal, state and local regulations.

**14: Transport Information**

Reference Bill of Lading

**15: Regulatory Information**

**SARA Title III, SECTION 313:** Our finished insulation products contain the following amounts of "Toxic Chemicals," as defined by the Superfund Amendments and Reauthorization Act (SARA, Title III) of 1986:

<u>Chemical Name</u>	<u>Cas No.</u>	<u>Percent by Weight</u>
Formaldehyde	50-00-0	<0.01%
Phenol	108-95-2	0.02%
Ammonia	7664-41-7	0.03%

**16: Other Information**

The information provided in this SDS is accurate to the best of Knauf Insulation's knowledge and is provided in good faith. No warranty is given with respect to its accuracy and/or reliability. The information relates only to the particular product and not to the product when used in combination with any other materials. It is the user's responsibility to take proper precautions when using this product and ensure its own compliance with applicable local, state and federal laws and regulations.

Revised September 2014



**Shell Chemicals**

# Cargo Handling Sheet

ShellSol 2046

Document Date: 14 July 2017  
Revision 3

*Cargo Handling Sheets are for the use of vessels chartered by Shell Chemicals*



## Product Details

Product Name: ShellSol 2046  
Shipping Name: Kerosene  
Chemical Family: Naphtha  
Product Code: Q7746

SDS: <http://www.shell.com/business-customers/chemicals/safe-product-handling-and-transportation/safety-data-sheets.html>

## Physical Properties

Density: 800 - 830 kg/m<sup>3</sup> (15 °C / 59 °F)  
Dynamic Viscosity: Data not available  
Vapor Pressure: Data not available  
Boiling Point: 195 - 260 °C / 383 - 500 °F  
Flash Point: Typical 75 °C / 167 °F  
Appearance: Colourless

**Note 1:** Physical Properties are for reference only and valid as of date of this revision; see loading terminal for specific properties.

**Note 2:** This product is a Static Accumulator.

**Transhipment** Prior to arranging transhipment, Charterers must agree to Owner's proposed plan

## Marpol Details

Marpol Annex: I  
IMO Ship Type: Double hull vessel with carriage of oil certification  
Inland Barge: Double Hull  
IMO Pollution Category: Annex I  
IBC 16.2.6: Not Applicable  
IBC 16.2.9: Not Applicable  
Pre-Wash Required: Not Applicable; wash/disposal as per Annex I  
Compatibility Group: USCG Compatibility group 33

### Cargo Handling Requirements

N2 Purge Cargo Tanks Prior Loading:	No
N2 Blanket Required:	No
Adjacent Space Purge:	No
Loading Temperature Range:	Ambient
Transit Temperature Range:	Ambient
Discharge Temperature Range:	Ambient
Maximum Heating Coil Temperature:	Blanked off
Adjacent Maximum Cargo Temperature:	55 °C / 131 °F

### Regional Requirements

None

### Tank Acceptance Requirements

All nominated shipboard cargo handling systems are to be presented clean (residual free), dry, odour free, rust free, with good gaskets, fit to load this cargo.

Maintenance of heating coils is to be verified in the ship's log. If product is to be heated, heating coils are to be confirmed leak free. If product is not heated, heating coils are to be blown clear and dried with N2, and blanked off.

Stainless Steel or Coated Tank:	Either, carrier to verify suitability of coating for product
Prior Cargo Restrictions:	No
Wall Wash Required:	No

## Safety Information and Incident Reporting

### Safety Information:

For more detailed information, refer to the SDS or e-SDS for reportable spill/release quantities whether in the water, air or ground.

### Incident Reporting:

International Registered Vessels: If an incident occurs call Shell International Trading and Shipping in London on +442079347777.

Jones Act Vessels: call the Shell 24 hr. incident number at +17132412532. The USA National Response Center telephone number is +18004248802.

For additional marine cargo handling advice or information, contact Captain Stephen Boudreaux at +17132413945 or Capt. Ben van Bommel at +31104415992.



#### Shell Chemical LP

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Houston

Texas 77210

USA

Tel +1 866 897 4355

Internet <http://www.shell.com/chemicals>

#### Disclaimer

The information contained in this publication is, to the best of our knowledge, true and accurate, but any recommendations or suggestions that may be made are without guarantee, since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use.

#### Shell Chemicals

The expression "Shell Chemicals" refers to the companies of the Shell Group of companies that are engaged in the chemical businesses. Each of the companies that make up the Shell Group of companies is an independent entity and has its own separate identity.

# SAFETY DATA SHEET



Issuing Date: 27-Feb-2015

Revision Date: 27-Feb-2015

Version 1

## 1. IDENTIFICATION

**Product Name** 2 Ultra Tide

**Product ID:** 98683495 RET NG

**Product Type:** Finished Product - Consumer (Retail) Use Only

**Recommended Use** Laundry Care

**Restrictions on Use** Use only as directed on label.

**Manufacturer** PROCTER GAMBLE - Fabric and Home Care Division. Ivorydale Technical Centre. 5289 Spring Grove Avenue, Cincinnati, Ohio 45217-1087 USA

**E-mail Address** pgsds.im@pg.com

**Emergency Telephone** Transportation (24 HR)  
CHEMTREC - 1-800-424-9300  
(U.S./ Canada) or 1-703-527-3887  
Mexico toll free in country: 800-681-9531

## 2. HAZARD IDENTIFICATION

Consumer Products, as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:

**Hazard Category**

**Acute toxicity - Oral** Category 4

**Eye Damage / Irritation** Category 2B

**Signal Word** WARNING

**Hazard Statements** Causes eye irritation  
Harmful if swallowed

**Hazard pictograms**



**Precautionary Statements - Prevention** Wash hands thoroughly after handling  
Do not eat, drink or smoke when using this product

<b>Precautionary Statements - Response</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF SWALLOWED: Rinse with plenty of water Drink 1 or 2 glasses of water Call a POISON CENTER or doctor/physician if you feel unwell
<b>Precautionary Statements - Storage</b>	None
<b>Precautionary Statements - Disposal</b>	None
<b>Hazards not otherwise classified (HNOC)</b>	None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts	-	No	68585-34-2	10 - 15
Ethanol, 2-amino-, 2-hydroxy-1,2,3-propanetricarboxylate (1: )	-	No	17863-38-6	5 - 10
Propylene glycol	-	No	57-55-6	1 - 5
Ethanol	-	No	64-17-5	1 - 5
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	-	No	68081-81-2	1 - 5
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	-	No	68585-47-7	1 - 5
2,2-Oxybisethanol	-	No	111-46-6	1 - 5
Disodium tetraborate pentahydrate	-	No	12179-04-3	0.5 - 1.5
Glycine, N,N-bis 2- bis(carboxymethyl)amino ethyl -, sodium salt (1:5)	-	No	140-01-2	0.1 - 1.0

### 4. FIRST AID MEASURES

#### First aid measures for different exposure routes

<b>Eye contact</b>	Rinse with plenty of water. Get medical attention immediately if irritation persists.
<b>Skin contact</b>	Rinse with plenty of water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician.
<b>Most important symptoms/effects, acute and delayed</b>	None under normal use conditions.

#### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to Physician</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray.
<b>Unsuitable Extinguishing Media</b>	None.
<b>Special hazard</b>	None known.
<b>Special protective equipment for fire-fighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>Specific hazards arising from the chemical</b>	None.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Use personal protective equipment. Do not get in eyes, on skin, or on clothing.
<b>Advice for emergency responders</b>	Use personal protective equipment as required.

### Methods and materials for containment and cleaning up

<b>Methods for containment</b>	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
<b>Methods for cleaning up</b>	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Advice on safe handling</b>	Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.
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### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Incompatible products</b>	None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

### Exposure Guidelines

Chemical Name	CAS-No	ACGIH TLV	OSHA PEL	Mexico PEL
Ethanol	64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m <sup>3</sup>	Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m <sup>3</sup>
Disodium tetraborate pentahydrate	12179-04-3	STEL: 6 mg/m <sup>3</sup> inhalable fraction TWA: 2 mg/m <sup>3</sup> inhalable	(vacated) TWA: 10 mg/m <sup>3</sup>	Mexico: TWA 1 mg/m <sup>3</sup>

Chemical Name	CAS-No	Alberta	Quebec	Ontario TWAEV	British Columbia
Propylene glycol	57-55-6			TWA: 10 mg/m <sup>3</sup> TWA: 50 ppm TWA: 155 mg/m <sup>3</sup>	
Ethanol	64-17-5	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	STEL: 1000 ppm	STEL: 1000 ppm
Disodium tetraborate pentahydrate	12179-04-3	TWA: 1 mg/m <sup>3</sup> STEL: 3 ppm	TWA: 1 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>

No relevant exposure guidelines for other ingredients

### Exposure controls

#### Engineering Measures

#### Distribution, Workplace and Household Settings:

Ensure adequate ventilation

#### Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

### Personal Protective Equipment

#### Eye Protection

#### Distribution, Workplace and Household Settings:

No special protective equipment required

#### Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

Use appropriate eye protection

#### Hand Protection

#### Distribution, Workplace and Household Settings:

No special protective equipment required

#### Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

Protective gloves

#### Skin and Body Protection

#### Distribution, Workplace and Household Settings:

No special protective equipment required

#### Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

Wear suitable protective clothing

#### Respiratory Protection

#### Distribution, Workplace and Household Settings:

No special protective equipment required

#### Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

In case of insufficient ventilation wear suitable respiratory equipment

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C	liquid
Appearance	blue
Odor	Floral
Odor threshold	No information available

Property	Values	Note
pH value	7.7 - 8.6	10% aqueous solution
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	

Flash point	65.5 C / 150 F
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limits in Air	
Upper flammability limit	No information available
Lower Flammability Limit	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	1.0000 - 1.0980
Water solubility	100%
Solubility in other solvents	No information available
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity of Product	100 - 1100 cps
VOC Content (%)	Products comply with US state and federal regulations for VOC content in consumer products.

## 10. STABILITY AND REACTIVITY

Reactivity	None under normal use conditions.
Stability	Stable under normal conditions.
Hazardous polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.
Conditions to Avoid	None under normal processing.
Materials to avoid	None in particular.
Hazardous Decomposition Products	None under normal use.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

#### Information on likely routes of exposure

Inhalation	No known effect.
Skin contact	No known effect.
Ingestion	May be harmful if swallowed.
Eye contact	Irritating to eyes.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity	May be harmful if swallowed.
Skin corrosion/irritation	No known effect.
Serious eye damage/eye irritation	Irritating to eyes.
Skin sensitization	No known effect.
Respiratory sensitization	No known effect.
Germ cell mutagenicity	No known effect.
Neurological Effects	No known effect.
Reproductive toxicity	No known effect.
Developmental toxicity	No known effect.
Teratogenicity	No known effect.
STOT - single exposure	No known effect.
STOT - repeated exposure	No known effect.
Target Organ Effects	No known effect.
Aspiration hazard	No known effect.
Carcinogenicity	No known effect.



**Component Information**

Chemical Name	CAS-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts	68585-34-2	2001 mg/kg	-	-
Propylene glycol	57-55-6	22000 mg/kg (rat)	2000 mg/kg (rabbit)	317.042 mg/L (Guideline not indicated; rabbit; 2 h)
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	1090.00 mg/kg (rat)	-	-
2,2-Oxybisethanol	111-46-6	12000.00 mg/kg (rat)	-	-
Glycine, N,N-bis 2- bis(carboxymethyl)amino ethyl -, sodium salt (1:5)	140-01-2	5000 mg/kg bw (Read across data (test substance name not indicated); OECD 401; standard acute method; rat)	2000 mg/kg bw (OECD 402 and EU Method B.3; standard acute method; rat)	-

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

The product is not expected to be hazardous to the environment.

**Persistence and degradability** No information available.

**Bioaccumulative potential** No information available.

**Mobility** No information available.

**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS****Waste treatment**

**Waste from Residues / Unused Products** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Codes (non-household setting)** 331

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**IMDG** Not regulated

**IATA** Not regulated

**15. REGULATORY INFORMATION****U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**California Proposition 65**

This product is not subject to warning labeling under California Proposition 65.

**U.S. State Regulations (RTK)**

Chemical Name	CAS-No	New Jersey
Propylene glycol	57-55-6	
Ethanol	64-17-5	

Chemical Name	CAS-No	Massachusetts
Ethanol	64-17-5	

Chemical Name	CAS-No	Pennsylvania
Propylene glycol	57-55-6	
Ethanol	64-17-5	
2,2 -Oxybisethanol	111-46-6	
Disodium tetraborate pentahydrate	12179-04-3	

**International Inventories****United States**

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

**Canada**

This product is in compliance with CEPA for import by P G.

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**CEPA** - Canadian Environmental Protection Act

<b>16. OTHER INFORMATION</b>
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**Issuing Date:** 27-Feb-2015

**Revision Date:** 27-Feb-2015

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific

material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**



## 1. Identification

<b>Product identifier</b>	<b>Hercules MegaBubble</b>
<b>Other means of identification</b>	
<b>Product code</b>	7322E
<b>Synonyms</b>	Part Numbers: 45801, 45802, 45803, 45804
<b>Recommended use</b>	Leak Detector
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company Name</b>	HCC Holdings, Inc. an Oatey Affiliate
<b>Address</b>	4700 West 160th Street Cleveland, OH 44135
<b>Telephone</b>	216-267-7100
<b>E-mail</b>	info@oatey.com
<b>Transport Emergency</b>	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)
<b>Emergency First Aid</b>	1-877-740-5015
<b>Contact person</b>	MSDS Coordinator

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute    Not applicable hazard
<b>OSHA defined hazards</b>	Not classified.
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	The mixture does not meet the criteria for classification.
<b>Precautionary statement</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.

## 3. Composition/information on ingredients

### Mixtures

<b>Chemical name</b>	<b>CAS number</b>	<b>%</b>
Propylene glycol	57-55-6	30-60
Water	7732-18-5	30-60
Glycerol	56-81-5	10-30

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Rinse skin with water/shower. Get medical attention if irritation develops and persists.

<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid prolonged exposure. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Glycerol (CAS 56-81-5)	PEL	5 mg/m <sup>3</sup> 15 mg/m <sup>3</sup>	Respirable fraction. Total dust.

#### US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
Propylene glycol (CAS 57-55-6)	TWA	10 mg/m <sup>3</sup>	Aerosol.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
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**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. 342

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves.

**Other** Wear suitable protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Liquid.

**Form** Liquid.

**Color** Blue.

**Odor** Odorless.

**Odor threshold** Not available.

**pH** 7.2

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 212 F (100 C)

**Flash point** 212.0 F ( 100.0 C)

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not available.

**Vapor density** Not available.

**Relative density** 1.05

### Solubility(ies)

**Solubility (water)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** 100 cP

### Other information

**VOC (Weight %)** 435 g/l

## 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

#### Acute toxicity

Components	Species	Test Results
Glycerol (CAS 56-81-5)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	12600 mg/kg
Propylene glycol (CAS 57-55-6)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	30 g/kg

Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.  
**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

#### Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.  
**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful.

**Further information** This product has no known adverse effect on human health.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Propylene glycol (CAS 57-55-6)

**Aquatic**

Crustacea	LC50	Ceriodaphnia dubia	18340 mg/l, 48 hours
Fish	LC50	Pimephales promelas	46500 mg/l, 96 hours

Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

**Partition coefficient n-octanol / water (log Kow)**

Glycerol (CAS 56-81-5)	-1.76
Propylene glycol (CAS 57-55-6)	-0.92

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

**DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

### 15. Regulatory information

**US federal regulations** This product is not known to be a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.



SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting) Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Glycerol (CAS 56-81-5)

**US. New Jersey Worker and Community Right-to-Know Act**

Glycerol (CAS 56-81-5)

Propylene glycol (CAS 57-55-6)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Glycerol (CAS 56-81-5)

Propylene glycol (CAS 57-55-6)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
apan	Inventory of Existing and New Chemical Substances (ENCS)	No
New ealand	New ealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 05-February-2015

**Revision date** -

**Version #** 01

**HMIS® ratings** Health: 0  
Flammability: 0  
Physical hazard: 0

**Disclaimer** HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, in ury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

## PRODUCT DESCRIPTION

LOCTITE® 242® provides the following product characteristics:

<b>Technology</b>	Acrylic
<b>Chemical Type</b>	Dimethacrylate ester
<b>Appearance (uncured)</b>	Blue liquid <sup>LMS</sup>
<b>Fluorescence</b>	Positive under UV light <sup>LMS</sup>
<b>Components</b>	One component - requires no mixing
<b>Viscosity</b>	Medium, thixotropic
<b>Cure</b>	Anaerobic
<b>Secondary Cure</b>	Activator
<b>Application</b>	Threadlocking
<b>Strength</b>	Medium

LOCTITE® 242® is designed for the locking and sealing of threaded fasteners which require normal disassembly with standard hand tools. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Suitable for applications on less active substrates such as plated surfaces, where disassembly with hand tools is required for servicing. The thixotropic nature of LOCTITE® 242® reduces the migration of liquid product after application to the substrate.

### Mil-S-46163A

LOCTITE® 242® is tested to the lot requirements of Military Specification Mil-S-46163A. **Note:** This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

### ASTM D5363

Each lot of adhesive produced in North America is tested to the general requirements defined in paragraphs 5.1.1 and 5.1.2 and to the Detail Requirements defined in section 5.2.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C 1.0

Flash Point - See SDS

Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):

Spindle 3, speed 2 rpm, Helipath ≥5,000<sup>LMS</sup>

Spindle 3, speed 20 rpm, Helipath 800 to 1,600<sup>LMS</sup>

Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP):

Spindle 3, speed 20 rpm, \*900 to 1,400<sup>LMS</sup>

Lubricity, ASTM D5648, K value, ASTM D 5648, %:

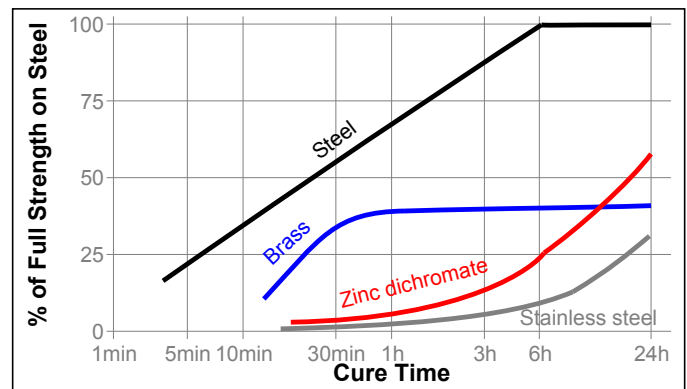
3/8 x 16 Phosphate & Oil Nuts, Bolts, Steel -10 to 10<sup>LMS</sup>  
Washer

(In critical applications, it is necessary to determine the K values independently. Henkel Corporation makes no warranty of specific performance on any individual fastener)

## TYPICAL CURING PERFORMANCE

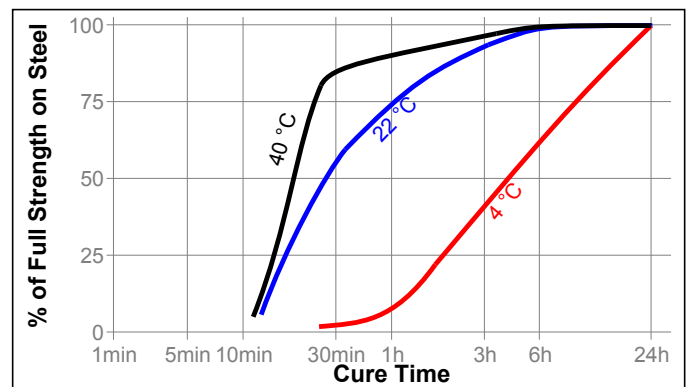
### Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The graph below shows the breakaway strength developed with time on M10 steel nuts and bolts compared to different materials and tested according to ISO 10964.



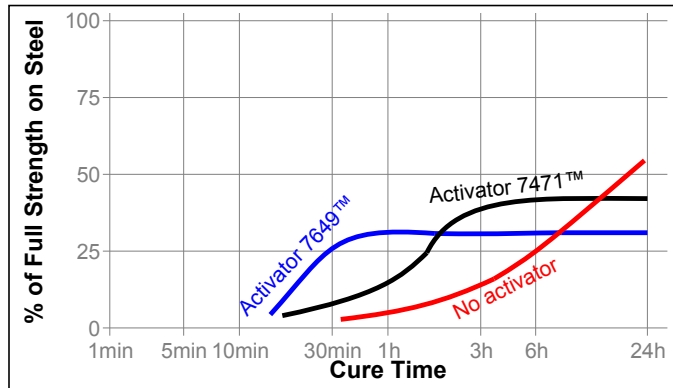
### Cure Speed vs. Temperature

The rate of cure will depend on the temperature. The graph below shows the breakaway strength developed with time at different temperatures on M10 steel nuts and bolts and tested according to ISO 10964.



### Cure Speed vs. Activator

Where cure speed is unacceptably long, or large gaps are present, applying activator to the surface will improve cure speed. The graph below shows the breakaway strength developed with time on M10 zinc dichromate steel nuts and bolts using Activator 7471™ and 7649™ and tested according to ISO 10964.



### TYPICAL PERFORMANCE OF CURED MATERIAL

#### Adhesive Properties

After 1 hour @ 22 °C

Breakaway Torque, ISO 10964:

3/8 x 16 steel nuts (grade 2) and bolts (grade 5) N·m 5.6 to 17<sup>LMS</sup>  
(lb.in.) (50 to 150)

Prevail Torque, ISO 10964:

3/8 x 16 steel nuts (grade 2) and bolts (grade 5) N·m 1.7 to 6.8<sup>LMS</sup>  
(lb.in.) (15 to 60)

After 24 hours @ 22 °C

Breakaway Torque, ISO 10964:

3/8 x 16 steel nuts (grade 2) and bolts (grade 5) N·m 7.9 to 17<sup>LMS</sup>  
(lb.in.) (70 to 150)

3/8 x 16 cadmium nuts and bolts N·m 1.1 to 6.8<sup>LMS</sup>  
(lb.in.) (10 to 60)

3/8 x 16 zinc nuts and bolts N·m 2.3 to 6.8<sup>LMS</sup>  
(lb.in.) (20 to 60)

M10 black oxide steel nuts and bolts N·m \*8 to 19<sup>LMS</sup>  
(lb.in.) (71 to 168)

Prevail Torque, ISO 10964:

3/8 x 16 steel nuts (grade 2) and bolts (grade 5) N·m 2.8 to 6.8<sup>LMS</sup>  
(lb.in.) (25 to 60)

3/8 x 16 cadmium nuts and bolts N·m 0.5 to 4.5<sup>LMS</sup>  
(lb.in.) (4 to 40)

3/8 x 16 zinc nuts and bolts N·m 1.1 to 4.5<sup>LMS</sup>  
(lb.in.) (10 to 40)

### TYPICAL ENVIRONMENTAL RESISTANCE

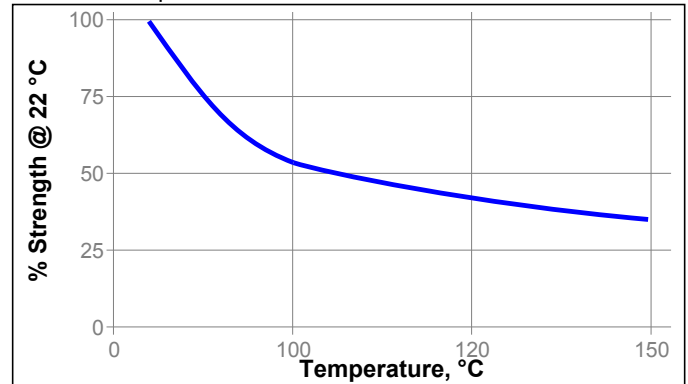
Cured for 24 hours @ 22 °C

Breakloose Torque, ISO 10964:

M10 steel nuts and bolts

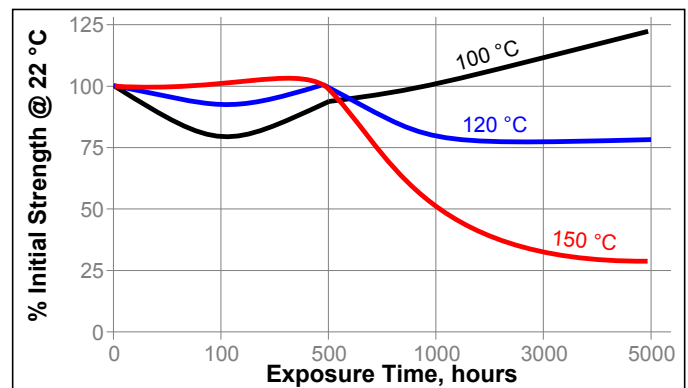
### Hot Strength

Tested at temperature



### Heat Aging

Aged at temperature indicated and tested @ 22 °C



### Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 22 °C.

Environment	°C	% of initial strength		
		100 h	500 h	1000 h
Motor oil (MIL-L-46152)	125	100	100	100
Unleaded gasoline	22	100	100	95
Leaded Gasoline I	22	100	100	100
Brake fluid	22	100	100	100
Ethanol	22	100	100	95
Acetone	22	100	100	85
1,1,1 Trichloroethane	22	100	100	90
Water/glycol 50/50	87	80	75	70
DEF (AdBlue®)	22		105	95

### GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).

Where aqueous washing systems are used to clean the surfaces before bonding, it is important to check for compatibility of the washing solution with the adhesive. In some cases these aqueous washes can affect the cure and performance of the adhesive.

This product is not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of the plastic could result). Users are recommended to confirm compatibility of the product with such substrates.

#### Directions for use:

##### For Assembly

1. For best results, clean all surfaces (external and internal) with a LOCTITE® cleaning solvent and allow to dry.
2. If the material is an inactive metal or the cure speed is too slow, spray all threads with Activator 7471™ or 7649™ and allow to dry.
3. Shake the product thoroughly before use.
4. To prevent the product from clogging in the nozzle, do not allow the tip to touch metal surfaces during application.
5. **For Thru Holes**, apply several drops of the product onto the bolt at the nut engagement area.
6. **For Blind Holes**, apply several drops of the product down the internal threads to the bottom of the hole.
7. **For Sealing Applications**, apply a 360° bead of product to the leading threads of the male fitting, leaving the first thread free. Force the material into the threads to thoroughly fill the voids. For bigger threads and voids, adjust product amount accordingly and apply a 360° bead of product on the female threads also.
8. Assemble and tighten as required.

##### For Disassembly

1. Remove with standard hand tools.
2. In rare instances where hand tools do not work because of excessive engagement length, apply localized heat to nut or bolt to approximately 250 °C. Disassemble while hot.

##### For Cleanup

1. Cured product can be removed with a combination of soaking in a Loctite solvent and mechanical abrasion such as a wire brush.

#### Loctite Material Specification<sup>LMS</sup>

LMS dated October 16, 1995 (\*October 7, 1999). Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

#### Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

**Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties.**

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

#### Conversions

(°C x 1.8) + 32 = °F  
 kV/mm x 25.4 = V/mil  
 mm / 25.4 = inches  
 µm / 25.4 = mil  
 N x 0.225 = lb  
 N/mm x 5.71 = lb/in  
 N/mm<sup>2</sup> x 145 = psi  
 MPa x 145 = psi  
 N·m x 8.851 = lb·in  
 N·m x 0.738 = lb·ft  
 N·mm x 0.142 = oz·in  
 mPa·s = cP

#### Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:**

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

**In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 1.6

## SAFETY DATA SHEET

Issuing Date: 13-Jul-2012

Revision Date: 10-Jul-2015

Revision No.: 1

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product identifier****Product Name** Safety Matches**Other means of identification****UN-No.** UN1944**Synonyms** Strike on Box Matches, Book Matches**Recommended use of the chemical and restrictions on use****Recommended use** Matches**Uses advised against** No information available**Details of the supplier of the safety data sheet****Supplier Name** Jarden Home Brands**Supplier Address** 1800 Cloquet Ave.

Cloquet

MN

55720

US

**Supplier Phone Number** Phone:1-800-392-2575**Supplier Email** [JHBCasualEntertainingInfo@jardenhomebrands.com](mailto:JHBCasualEntertainingInfo@jardenhomebrands.com)**Emergency telephone number** CHEMTREC 1-800-424-9300**2. HAZARDS IDENTIFICATION****Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable solids

Category 2

**GHS Label elements, including precautionary statements****Emergency Overview****Signal Word****Warning****Hazard Statements**

Flammable solids

**Appearance:** wooden match**Physical State:** Solid**Odor:** none**Precautionary Statements - Prevention**

Keep away from heat/sparks/open flames/hot surfaces - No smoking

Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response****Precautionary Statements - Storage**

Store in a cool, dry location, away from heat, open flames or sparks, or flammable materials.

**Precautionary Statements - Disposal**

None

**Hazards not otherwise classified (HNOC)**

Smoke from fire may be irritating to lungs and eyes.

**Unknown Toxicity**

11% of the mixture consists of ingredient(s) of unknown toxicity

**Other Information**

None

**Interactions with Other Chemicals**

No information available

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	Weight-%
<b>Match:</b>		
Sulfur	7704-34-9	0.8%
Potassium chlorate	3811-04-9	8%
Proprietary binders, adhesives & additives	Not Determined	11%
Monoammonium Phosphate treatment added to splint	7722-76-1	trace
Aspen wood splint	67-65-1	~80%
<b>Box &amp; Striker Strip:</b>		
Amorphous Red Phosphorous	7723-14-0	<1.0%

*Note: Exposure to wood dust is not expected during use and handling of this product*

**4. FIRST AID MEASURES****First aid measures****Burns:**

Treat all thermal burns with appropriate first aid measures for degree of burn

**Respiratory Distress:**

Remove to fresh air and seek medical attention for smoke inhalation

**Eyes:**

Flush with fresh water for 15 minutes and seek medical attention.

**Ingestion:**

While potassium chlorate is classified as a harmful substance, the quantity present in a single match is very low (typically 16 mg in a kitchen match). With an LD50 of 1870 mg/kg of body weight, death may occur after ingestion of around 53 kitchen matches/pound of body weight, i.e. over 1000 matches for a 20 pound child. The quantities of matches are so large that the health risk is considered negligible.

**Most important symptoms and effects, both acute and delayed**

**Most important symptoms and Effects** Coughing and/ or wheezing from smoke inhalation. Difficulty in breathing.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician**

Treat symptomatically

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Water is the most effective extinguishant, but dry chemical, CO2, sand, earth, or regular foam can be used.

**Unsuitable Extinguishing Media**

Not known

**Specific Hazards Arising from the Chemical**

A large quantity of matches may burn rapidly with flare burning effect.

**Uniform Fire Code**

FLAMMABLE SOLID: INORGANIC

**Hazardous Combustion Products**

Oxides of carbon, oxides of sulfur

**Protective equipment and precautions for firefighters**

Move containers from fire area if you can do it without risk

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures****Personal Precautions**

The likelihood of match head composition being released into the environment is low. If significant quantities of matches are released by breakage or spillage then remove all potential sources of ignition, salvage any undamaged product and wet down the remaining product before cleaning up.

**7. HANDLING AND STORAGE****Precautions for safe handling****Handling**

In storage, matches give off no toxic fumes or flammable gases. Matches do not spontaneously catch fire although fires can occur if the product is mishandled. Handling and storage requirements are such as to minimize sources of ignition, and other highly flammable materials.

**Conditions for safe storage, including any incompatibilities****Storage**

Store in a cool, dry location, away from heat, open flames or sparks, or flammable materials.

**Incompatible Products**

None known based on available information

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Guidelines**

No special measures are required when handling matches.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

<b>Physical State</b>	Solid	<b>Odor</b>	None
<b>Appearance</b>	Matches	<b>Odor Threshold</b>	no information available
<b>Color</b>	Various		

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
pH	No data available	None known
Melting/freezing point	No data available	None known
Boiling point/boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	No data available	None known
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	No data available	None known
Water Solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient:		
n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	None known
Oxidizing Properties	No data available	None known
<u>Other information</u>		
Softening Point	No data available	None known
VOC Content (%)	No data available	None known
Particle Size	No data available	None known
Particle Size Distribution	No data available	None known

## 10. STABILITY AND REACTIVITY

### Reactivity

Stable under normal ambient conditions. They are liable to spontaneous combustion at temperatures exceeding 350°F

### Chemical stability

Stable under recommended storage conditions

### Possibility of Hazardous Reactions

If ignited in large quantities matches produce much smoke

### Hazardous Polymerization

Hazardous polymerization does not occur

### Conditions to avoid

Heat, flames, and sparks

### Incompatible materials

None known based on available information

**Hazardous Decomposition Products**

Oxides of carbon, oxides of sulfur

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information

**Inhalation** Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Harmful by inhalation. (based on components).

**Eye Contact** Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to eyes. May cause redness, itching, and pain. May cause temporary eye irritation.

**Skin Contact** Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to skin. Prolonged contact may cause redness and irritation.

**Ingestion** Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed. (based on components).

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sulfur 7704-34-9	>3000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	>9.23 mg/L (Rat) 4h
Potassium chlorate 3811-04-9	=1870 mg/kg (Rat)	<2000 mg/kg (Rabbit)	-

**Information on toxicological effects**

**Symptoms** Coughing and/ or wheezing from smoke inhalation.

**Delayed & immediate effects as well as chronic effects from short & long-term exposure**

**Sensitization** No information available

**Mutagenic Effects** No information available

**Carcinogenicity** Contains no ingredient listed as a carcinogen

**Reproductive Toxicity** No information available

**STOT - single exposure** No information available

**STOT - repeated exposure** No information available

**Chronic Toxicity** No known effect based on available information

**Target Organ Effects** Respiratory system from smoke inhalation

**Aspiration Hazard** No information available

**Numerical measures of toxicity Product Information**

The following value is calculated based on App A (A.1.3.6.2.4) of the HazCom regulation

**ATEmix (oral)**

19,299 mg/kg

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The environmental impact of this product has not been fully investigated

### Persistence and Degradability

No information available

### Bioaccumulation

No information available

### Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

<b>Disposal methods</b>	Should not be released into the environment. Dispose of contents/containers in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated Packaging</b>	Dispose of contents/containers in accordance with local regulations
<b>US EPA Waste Number</b>	D001
<b>California Hazardous Waste Codes</b>	181

## 14. TRANSPORT INFORMATION

### DOT

<b>UN-No.</b>	UN1944
<b>Proper Shipping Name</b>	matches, safety
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	III
<b>Description</b>	UN1944, MATCHES, SAFETY, 4.1, III
<b>Emergency Response Guide Number</b>	133

### TDG

<b>UN-No.</b>	UN1944
<b>Proper Shipping Name</b>	MATCHES, SAFETY
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	III
<b>Description</b>	UN1944, MATCHES, SAFETY, 4.1, III

### MEX

<b>UN-No.</b>	UN1944
<b>Proper Shipping Name</b>	Matches, safety
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	III
<b>Description</b>	UN1944 Matches, safety, 4.1, III

### ICAO

<b>UN-No.</b>	UN1944
<b>Proper Shipping Name</b>	Matches, safety
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	iii
<b>Description</b>	UN1944, Matches, safety, 4.1, III

**IATA**

<b>UN-No.</b>	UN1944
<b>Proper Shipping Name</b>	MATCHES, SAFETY
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	iii
<b>Description</b>	UN1944, MATCHES, SAFETY, 4.1, III

**IMDG/IMO**

<b>UN-No.</b>	UN1944
<b>Proper Shipping Name</b>	MATCHES, SAFETY
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	iii
<b>EmS No.</b>	F-A, S-1
<b>Description</b>	UN1944, MATCHES, SAFETY, 4.1, III

**RID**

<b>UN-No.</b>	UN1944
<b>Proper Shipping Name</b>	Matches, safety
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	III
<b>Classification code</b>	F1
<b>Description</b>	UN1944 Matches, safety, 4.1, III

**ADR**

<b>UN-No.</b>	UN1944
<b>Proper Shipping Name</b>	Matches, safety
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	III
<b>Classification code</b>	F1
<b>Description</b>	UN1944 Matches, safety, 4.1, III

**ADN**

<b>UN-No.</b>	UN1944
<b>Proper Shipping Name</b>	Matches, safety
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	III
<b>Classification code</b>	F1
<b>Special Provisions</b>	293
<b>Description</b>	UN1944 Matches, safety, 4.1, III
<b>Hazard Labels</b>	4.1
<b>Limited Quantity</b>	LQ9

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA Complies  
 DSL all components are listed either on the DSL or NDSL.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List.

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	Yes
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical Name	NJ	MA	PA	RI	IL
Potassium chlorate 3811-04-9	X	X	X		
Sulfur 7704-34-9	X	X	X		

**International Regulations**

**Canada**  
**WHMIS Hazard Class**  
 B4 - Flammable solid



<b>16. OTHER INFORMATION</b>
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<b>NFPA</b>	Health Hazards 1	Flammability 4	Instability 2	Physical & Chemical Hazards
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<b>HMIS</b>	Health Hazards 1	Flammability 4	Physical Hazard 2	Personal Protection X
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<b>Prepared by</b>	Jarden Leisure & Entertainment 9999 East 121st Street Fishers, IN 46037	SCH
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<b>Issuing Date</b>	7/13/2012
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<b>Revision Date</b>	7/10/2015
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<b>Revision Note</b>	Updated contact information
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**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



**CEMENT & CONCRETE PRODUCTS™**

## C4: Portland Cement Based Concrete Products

**SAFETY DATA SHEET**  
(Complies with OSHA 29 CFR 1910.1200)

### SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies  
One Securities Centre  
3490 Piedmont Road, Suite 1300  
Atlanta, GA 30305

Emergency Telephone Number  
(770) 216-9580  
Information Telephone Number  
(770) 216-9580

Revision: Jan-16  
SDS C4

<b>QUIKRETE® Product Name</b>	<b>Item #(s)</b>
MORTAR MIX	1102
VIEUX CARRE MORTAR MIX	1102-86
ALL-STAR MORTAR MIX	1122
MASON MIX	1136
ALL-STAR MASON MIX	1136
QUIKRETE® PRO-FINISH BLENDED MASON MIX	1136-58
ALL-STAR VENEER STONE MORTAR	1137
ROOF TILE MORTAR	1140
VENEER STONE MORTAR	1137
POLYMER MODIFIED VENEER STONE MORTAR	1137-85
CSC-4	1191-84
TUCKPOINTING MORTAR – ZIP AND MIX	1251-15
GLASS BLOCK MORTAR	1610
K-1 Mortar	210280
HANDICRETE MORTAR MIX	
NATURAL STONE MORTAR	
RED-E-CRETE MORTAR	
BULK MASONRY MORTARS: MIX 101M, 102 S, 104 N, 112 M, 112 N, 112 S, 122 M, 122 N, 122 S, 132 S, 142, 201 M, 202 PLN, 202 S, 203 PLS, 203 S, 203 N, 204 N, 205 P/L type O, 203 M, 212 M, 212 N, 212 S, 222 M, 222 S, 253 S, 294 N	

**Product Use:** Masonry Mortars for construction with block, brick, veneer stones, etc.

### SECTION II - HAZARD IDENTIFICATION

**Hazard-determining components of labeling:** Silica, Portland cement

#### 2.1 Classification of the substance or mixture

Carcinogen – Category 1A

Skin Corrosion – Category 1B

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Skin Sensitization – Category 1B

Specific Target Organ Toxicity Repeat Exposure – Category 1

Specific Target Organ Toxicity: Single Exposure – Category 3

## 2.2a Signal word DANGER!

### 2.2b Hazard Statements

May cause cancer through chronic inhalation

Causes severe skin burns and serious eye damage

May cause an allergic skin reaction

Causes damage to lungs through prolonged or repeated inhalation

May cause respiratory irritation

### 2.2c Pictograms



### 2.2d Precautionary statements

Do not handle until all safety precautions have been read and understood.

eye protection, and protective clothing.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Use only in a well-ventilated area.

Do not breathe dust.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If on skin (or hair): Remove immediately all contaminated clothing and wash before re-use. Rinse skin or hair with water.

If significant skin irritation or rash occurs: get medical advice or attention.

**Immediately seek medical advice or attention if symptoms are significant or persist.**

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/containers in accordance with all regulations.

## 2.3 Additional Information



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The Portland cement in this product can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. Burns from Portland cement may not cause immediate pain or discomfort. You cannot rely on pain to alert you to cement burns. Therefore precautions must be taken to prevent all contact with Portland cement. Cement burns can become worse even after contact has ended. If there is contact with this product, immediately remove all product from body and thoroughly rinse with water. If you experience or suspect a cement burn or inflammation you should immediately see a health care professional.

Skin burns and irritation may be caused by brief exposure, though often are caused by extended exposure of 15 minutes, an hour, or longer. Interaction of Portland cement with water or sweat releases a caustic solution which produces the burns or irritation. Any extended exposure should be treated as though a burn has occurred until determined otherwise.

Skin contact with Portland cement can also cause inflammation of the skin, referred to as dermatitis. Signs and symptoms of dermatitis can include itching, redness, swelling, blisters, scaling, and other changes in the normal condition of the skin. Signs and symptoms of burns include the above and whitening, yellowing, blackening, peeling or cracking of skin.

The Portland cement in this product may cause allergic contact dermatitis in sensitized individuals. This overreaction of the immune system can lead to severe inflammation. Sensitization may result from a single exposure to the low levels of Cr(VI) in Portland cement or repeated exposures over months or years. Sensitization is long lasting and, after sensitization, even very small quantities can trigger the dermatitis. Sensitization is uncommon. Individuals who experience skin problems, including seemingly minor ones, are advised to seek medical attention.

**2.3a HNOC – Hazards not otherwise classified:** Not applicable

**2.3b Unknown Acute Toxicity:** None

**2.3C WHMIS Classification**

Class D2B – Skin/Eye Irritant

Class D2A – Chronic Toxic Effects – Carcinogen

Class E – Corrosive Material

**2.3d Label Elements According To WHMIS**

**Hazard Symbols**



**Signal Word**



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DANGER!

### SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>% by Weight</u>
Sand, Silica, Quartz	14808-60-7	40-70*
Portland Cement	65997 15 1	10-30*
Lime	01305-62-0	5-10*
Alternately to Lime, May Contain:		
Calcium Carbonate	1317-65-3	5-10*
Calcium Sulfate Dihydrate	7778-18-9	1-5*

\*The concentrations ranges are provided due to batch-to-batch variability.  
None of the constituents of this material are of unknown toxicity.

### SECTION IV – FIRST AID MEASURES

#### 4.1 Description of the first-aid measures

##### General information:

**After inhalation:** Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. In case of unconsciousness, place patient stably in side position for transportation.

**After skin contact:** Wash skin with cool water and pH-neutral soap or a mild detergent. If significant skin irritation or rash occurs: get medical advice or attention.

**After eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**After swallowing:** Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately. Never give anything by mouth to an unconscious person.

#### 4.2 Most important symptoms/effects, acute and delayed

**Inhalation:** May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated inhalation. This product contains crystalline silica. Prolonged or repeated inhalation of respirable silica from this product can cause silicosis.

**Skin contact:** The Portland cement in this product can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns.

Burns from Portland cement may not cause immediate pain or discomfort. You cannot rely on pain to alert you to cement burns. Therefore precautions must be taken to prevent all contact with Portland cement. Cement burns can become worse even after contact has ended. If there is contact with this product, immediately remove all product from body and thoroughly rinse with water.



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If you experience or suspect a cement burn or inflammation you should immediately see a health care professional.

Skin burns and irritation may be caused by brief exposure, though often are caused by extended exposure of 15 minutes, an hour, or longer. Interaction of Portland cement with water or sweat releases a caustic solution which produces the burns or irritation. Any extended exposure should be treated as though a burn has occurred until determined otherwise.

Skin contact with Portland cement can also cause inflammation of the skin, referred to as dermatitis. Signs and symptoms of dermatitis can include itching, redness, swelling, blisters, scaling, and other changes in the normal condition of the skin. Signs and symptoms of burns include the above and whitening, yellowing, blackening, peeling or cracking of skin.

The Portland cement in this product may cause allergic contact dermatitis in sensitized individuals. This overreaction of the immune system can lead to severe inflammation. Sensitization may result from a single exposure to the low levels of Cr(VI) in Portland cement or repeated exposures over months or years. Sensitization is long lasting and, after sensitization, even very small quantities can trigger the dermatitis. Sensitization is uncommon. Individuals who experience skin problems, including seemingly minor ones, are advised to seek medical attention.

**Eye Contact:** Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Ingestion:** May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

**4.3 Indication of immediate medical attention and special treatment needed:**  
Immediately seek medical advice or attention if symptoms are significant or persist.

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## SECTION V - FIRE FIGHTING MEASURES

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**5.1 Flammability of the Product:** Non-flammable and non-combustible

**5.2 Suitable extinguishing agents:** Treat for surrounding material

**5.3 Special hazards arising from the substance or mixture:** None

**5.3a Products of Combustion:** None

**5.3b Explosion Hazards in Presence of Various Substances:** Non-explosive in presence of shocks

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## SECTION VI – ACCIDENTAL RELEASE MEASURES

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**6.1 Personal precautions, protective equipment and emergency procedures:** Wear personal protective equipment (See section VIII). Keep unprotected persons away.



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## 6.2 Methods and material for containment and cleaning up:

Do not allow to enter sewers/ surface or ground water. Dispose of unwanted materials and containers properly in accordance with all regulations.

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## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

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### 7.1 Handling

**Precautions for safe handling:** Ensure good ventilation/exhaustion at the workplace. **DO NOT BREATHE DUST.** In dusty environments, the use of an OSHA, MSHA or NIOSH approved respirator and tight fitting goggles is recommended. Wear appropriate PPE (See section 8). Do not mix with other chemical products, except as indicated by the manufacturer. Do not get in eyes, on skin or clothing. Good housekeeping is important to prevent accumulation of dust.

### 7.2 Storage

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep out of the reach of children. Keep container tightly closed and prevent exposure to humidity. Do not allow water to contact the product until time of use to preserve product utility.

---

## SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION

---

### 8.1 Components with limit values that require monitoring at the workplace:

Hazardous Components	CAS No.	PEL (OSHA) mg/M <sup>3</sup>	TLV (ACGIH) mg/M <sup>3</sup>
Silica Sand, crystalline	14808-60-7	0.1	0.025 (resp)
Portland Cement	65997-15-1	5 (resp) 15 (total)	10 (resp)
Lime	01305-62-0	5	5
Pulverized Limestone	01317-65-3	5 (resp) 15 (total)	10 (resp)

### 8.2 Exposure Controls

Use ventilation adequate to keep exposures below recommended exposure limits.

### 8.3 General protective and hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

### 8.3a Personal protective equipment

#### Protection of hands:



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Wear gloves of adequate length to offer appropriate skin protection from splashes. Nitrile, Butyl and PVC gloves have been found to offer adequate protection for incidental contact. Precautions must be observed because burns occur with little warning -- little heat is sensed.

**Eye protection:**

Wear approved eye protection (properly fitted dust- or splash-proof chemical safety glasses).

**Respiratory protection:**

A NIOSH-approved dust mask or filtering face piece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional, following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

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**SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS**

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**General Information**

<b>Appearance</b>	Form: Granular Solid Color: Gray to gray-brown colored Odor: None
<b>pH-value at 20°C (68 °F):</b>	13 (10%)
<b>Boiling point/Boiling range:</b>	Not applicable
<b>Flash point:</b>	Not applicable
<b>Auto igniting:</b>	Product is not self-igniting
<b>Vapor pressure at 21°C (70°F)</b>	Not available
<b>Density at 25°C (77 °F):</b>	2.6 to 3.15

**Solubility in / Miscibility with**

<b>Water:</b>	Insoluble
<b>VOC content:</b>	0 g/L VOC

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**SECTION X – STABILITY AND REACTIVITY**

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**10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

Stable under normal storage conditions. Keep in dry storage.

**10.3 Possibility of hazardous reaction**

No dangerous reaction known under conditions of normal use.

**10.4 Thermal decomposition / conditions to be avoided**

No decomposition if used according to specifications.

**10.5 Incompatible materials**



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Contact of silica with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, or oxygen difluoride may cause fires

### 10.6 Hazardous Decomposition or By-products

Silica will dissolve in Hydrofluoric Acid and produce a corrosive gas – silicon tetrafluoride.

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## SECTION XI – TOXICOLOGICAL INFORMATION

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**11.1 Exposure Routes:** Skin contact, skin adsorption, eye contact, inhalation, or ingestion.

### 11.2 Symptoms related to physical/chemical/toxicological characteristics:

**Inhalation:** May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated exposure. This product contains crystalline silica. Prolonged or repeated inhalation of respirable silica from this product can cause silicosis.

**Skin contact:** Causes skin irritation. Handling can cause dry skin, discomfort, irritation, and dermatitis. May cause sensitization by skin contact. Product becomes extremely alkaline when exposed to moisture, and can cause alkali burns and affect the mucous membranes.

**Eye Contact:** Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Ingestion:** Harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

### 11.3 Delayed, immediate and chronic effects of short-term and long-term exposure

#### Short Term

Skin Corrosion/Irritation: Causes severe skin burns.

Serious Eye Damage/Irritation: Causes severe eye damage.

Respiratory Sensitization: Not available

Skin Sensitization: May cause an allergic skin reaction.

Specific Target Organ Toxicity-Single Exposure: (Category 3) May cause respiratory irritation.

Aspiration Hazard: Not available

#### Long Term

Carcinogenicity: May cause cancer through chronic inhalation.

Germ Cell Mutagenicity: Not available

Reproductive Toxicity: Not available

Specific Target Organ Toxicity- Repeated Exposure: (Category 1) Causes damage to lungs through prolonged/repeated exposure

Synergistic/Antagonistic Effects: Not available.

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## SECTION XII – ECOLOGICAL INFORMATION

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### 12.1 Ecotoxicity

May cause long-term adverse effects to the aquatic environment. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or un-neutralized

### 12.2 Persistence and degradability

No further relevant information available.

### 12.3 Bioaccumulative potential:

No further relevant information available.

### 12.4 Mobility in soil

No further relevant information available.

### 12.5 Other Adverse Effects

No further relevant information available.

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## SECTION XIII – DISPOSAL CONSIDERATIONS

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### 13.1 Waste Disposal Method

The packaging and material may be land filled; however, material should be covered to minimize generation of airborne dust. This product is not classified as a hazardous waste under the authority of the RCRA (40CFR 261) or CERCLA (40CFR 117&302). Disposal must be made in accordance with local, state and federal regulations.

### 13.2 Other disposal considerations

#### Uncleaned packaging

**Recommendation:** Disposal must be made in accordance with local, state and federal regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

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## SECTION XIV – TRANSPORT INFORMATION

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	<b>DOT (U.S.)</b>	<b>TDG (Canada)</b>
<b>UN-Number</b>	Not Regulated	Not Regulated
<b>UN proper shipping name</b>	Not Regulated	Not Regulated
<b>Transport Hazard Class(es)</b>	Not Regulated	Not Regulated
<b>Packing Group (if applicable)</b>	Not Regulated	Not Regulated

### 14.1 Environmental hazards:

Not Available

### 14.2 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code



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Not available

### 14.3 Special precautions for user

Do not handle until all safety precautions have been read and understood.

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## SECTION XV – OTHER REGULATORY INFORMATION

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### 15.1 Safety, Health and Environmental Regulations/Legislations specific for the chemical

#### Canada

**WHMIS Classification:** Considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations and subject to the requirements of Health Canada's Workplace Hazardous Material Information (WHMIS). This document complies with the WHMIS requirements of the Hazardous Products Act (HPA) and the CPR.

### 15.2 US Federal Information

#### SARA 302/311/312/313 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302, 311, 312 or 313.

**RCRA:** Crystalline silica (quartz) is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

**CERCLA:** Crystalline silica (quartz) is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR §302.

**Emergency Planning and Community Right to Know Act (SARA Title III):** Crystalline silica (quartz) is not an extremely hazardous substance under Section 302 and is not a toxic chemical subject to the requirements of Section 313.

**FDA:** Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3)(xxvi).

**NTP:** Respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is classified as Known to be a Human Carcinogen.

**OSHA Carcinogen:** Crystalline silica (quartz) is not listed.

### 15.3 State Right to Know Laws

#### California Prop. 65 Components

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**California Inhalation Reference Exposure Level (REL):** California established a chronic REL of 3 µg for silica (crystalline, respirable). A chronic REL is an airborne level of a



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substance at or below which no adverse health effects are anticipated in individuals indefinitely exposed to the substance at that level.

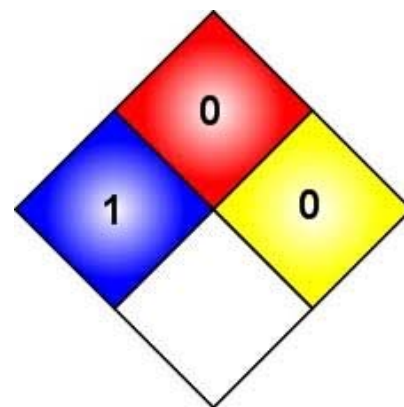
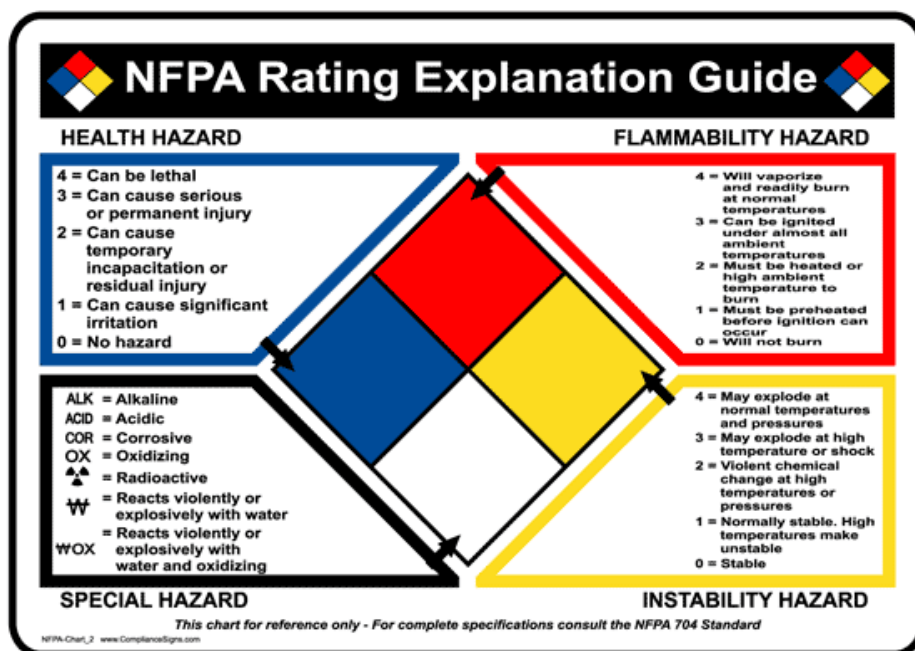
**Massachusetts Toxic Use Reduction Act:** Silica, crystalline (respirable size, <10 microns) is “toxic” for purposes of the Massachusetts Toxic Use Reduction Act.

### 15.4 Global Inventories

**DSL** All components of this product are on the Canadian DSL list.

**TSCA No.:** Crystalline silica (quartz) appears on the EPA TSCA inventory under the CAS No. 14808-60-7. All constituents are listed in the TSCA inventory.

### 15.5 NFPA Ratings



## SECTION XVI – OTHER INFORMATION

Last Updated: January 4, 2016

**NOTE:** The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to

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the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

Prepared by

The QUIKRETE<sup>®</sup> Companies  
Phone (800) 282-5828  
[www.QUIKRETE.com](http://www.QUIKRETE.com)

**End of SDS**

**SAFETY DATA SHEET**

Revision Date: 01/08/2018

Print Date: 4/18/2018

SDS Number: R0252918

SynPower™ 5W30 Synthetic Motor Oil

Version: 1.4

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29 CFR 1910.1200 (OSHA HazCom 2012)

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION****Product identifier**Trade name : SynPower™ 5W30  
Synthetic Motor Oil**Details of the supplier of the safety data sheet**Valvoline LLC  
100 Valvoline Way  
Lexington, KY 40509  
United States of America (USA)  
1-800-TEAMVAL (1-800-832-6825)**Emergency telephone number**

1-800-VALVOLINE (1-800-825-8654)

**Regulatory Information Number**

1-800-TEAMVAL (1-800-832-6825)

**Product Information**

1-800-TEAMVAL (1-800-832-6825)

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

**GHS label elements**

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

**Other hazards**

None known.


**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous components**

Chemical name	CAS-No.	Classification	Concentration (%)
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	Asp. Tox. 1; H304	25.234
Mineral Oil		Asp. Tox. 1; H304	5.871

**SECTION 4. FIRST AID MEASURES**


		
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- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.  
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.  
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:  
acne  
stomach or intestinal upset (nausea, vomiting, diarrhea)  
irritation (nose, throat, airways)
- Notes to physician : No hazards which require special first aid measures.

---

## SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

		
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- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide  
Hydrocarbons  
nitrogen oxides (NOx)
- Specific extinguishing methods :  
  
Product is compatible with standard fire-fighting agents.
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.


**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.  
For personal protection see section 8.
- Materials to avoid : No materials to be especially mentioned.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of	Control parameters /	Basis

		
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		exposure)	Permissible concentration	
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	TWA	5 mg/m3 Mist	OSHA -1
		TWA	5 mg/m3 Inhalable fraction	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
		PEL	5 mg/m3 particulate	CAL PEL

**Hazardous components without workplace control parameters**

Components	CAS-No.
Mineral Oil	

**Engineering measures** : General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection : Wear as appropriate:  
Safety shoes  
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : General industrial hygiene practice.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state : liquid

Colour : amber

Odour : mild

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Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: 626 F / 330 C (1,013.333333 hPa) Calculated Phase Transition Liquid/Gas
Flash point	: 390 F / 199 C Method: Cleveland open cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: 6 %(V) Calculated Explosive Limit
Lower explosion limit	: 1 %(V) Calculated Explosive Limit
Vapour pressure	: 1.3333333 hPa (20 C) Calculated Vapor Pressure
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.8473 g/cm3
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: 63.17 mm2/s (40 C)
Oxidizing properties	: No data available

**SECTION 10. STABILITY AND REACTIVITY**

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Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Product will not undergo hazardous polymerization.
Conditions to avoid	: None known.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	carbon dioxide and carbon monoxide Hydrocarbons Nitrogen oxides (NOx)

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure : Inhalation  
Skin contact  
Eye Contact  
Ingestion

**Acute toxicity**

Not classified based on available information.

**Components:**

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

Acute oral toxicity : LD50 (Rat): 15 g/kg

Acute dermal toxicity : LD50 (Rabbit): 5 g/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Components:**

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

Result: Slight, transient irritation

**Serious eye damage/eye irritation**

Not classified based on available information.

**Product:**

Remarks: Unlikely to cause eye irritation or in ury.

**Components:**

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:


Result: No eye irritation

**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.



	
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Germ cell mutagenicity  
Not classified based on available information.

**Carcinogenicity**  
Not classified based on available information.

**Reproductive toxicity**  
Not classified based on available information.

**STOT - single exposure**  
Not classified based on available information.

**STOT - repeated exposure**  
Not classified based on available information.

**Aspiration toxicity**  
Not classified based on available information.

**Product:**  
No aspiration toxicity classification

**Components:**  
Distillates (Petroleum), Hydrotreated Heavy Paraffinic:  
May be fatal if swallowed and enters airways.

Mineral Oil:  
May be fatal if swallowed and enters airways.

**Further information**  
**Product:**  
Remarks: No data available

**Carcinogenicity:**  
**IARC** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.


---

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**  
**Product:**  
Ecotoxicology Assessment  
Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

**Components:**

		
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Distillates (Petroleum), Hydrotreated Heavy Paraffinic:

Toxicity to fish : LL50 (Fish): 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EL50 (Aquatic invertebrates): 10,000 mg/l  
Exposure time: 48 h

Toxicity to algae : EL50 (Algae, algal mat (Algae)): 100 mg/l  
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Fish): 10 mg/l

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Aquatic invertebrates): 10 mg/l

**Persistence and degradability**

**Components:**

No data available

**Bioaccumulative potential**

**Components:**

No data available

**Mobility in soil**

**Components:**

No data available

**Other adverse effects**

No data available

**Product:**

Additional ecological information : No data available

**Components:**

---

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

General advice : Dispose of in accordance with all applicable local, state and federal regulations.


Contaminated packaging : Empty remaining contents.

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**SECTION 14. TRANSPORT INFORMATION**

**International transport regulations**

**REGULATION**

		
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ID NUMBER	PROPER SHIPPING NAME	HA ARD CLASS	SUBSIDIARY HA ARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
-----------	----------------------	--------------	--------------------	---------------	------------------------------

**U.S. DOT - ROAD**

Not dangerous goods
---------------------

**CFR\_RAIL\_C**

Not dangerous goods
---------------------

**U.S. DOT - INLAND WATERWAYS**

Not dangerous goods
---------------------

**TDG\_ROAD\_C**

Not dangerous goods
---------------------

**TDG\_RAIL\_C**

Not dangerous goods
---------------------

**TDG\_INWT\_C**

Not dangerous goods
---------------------

**INTERNATIONAL MARITIME DANGEROUS GOODS**

Not dangerous goods
---------------------

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

Not dangerous goods
---------------------

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**


Not dangerous goods
---------------------

**MX\_DG**

Not dangerous goods
---------------------

\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	no
------------------	----

		
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

## SECTION 15. REGULATORY INFORMATION

### EPCRA - Emergency Planning and Community Right-to-Know Act CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
TOLUENE	108-88-3	1000	

: Calculated RQ exceeds reasonably attainable upper limit.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 313** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop 65** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

### The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AICS : Not in compliance with the inventory

ENCS : Contact your sales representative for additional information.

KECI : On the inventory, or in compliance with the inventory

IECSC : q (quantity restricted)

PICCS : Not in compliance with the inventory


TSCA : On TSCA Inventory

### Inventories

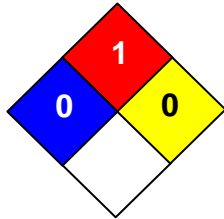
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), N LoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

## SECTION 16. OTHER INFORMATION

**Further information**

		
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<p><b>NFPA:</b></p> <p style="text-align: center;">Flammability</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">Health 0</div> <div style="text-align: center;">  </div> <div style="text-align: center;">Instability 0</div> </div> <p style="text-align: center;">Special hazard.</p>	<p><b>HMIS III:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: blue; color: white; text-align: center;"><b>HEALTH</b></td> <td style="text-align: center;"><b>0</b></td> </tr> <tr> <td style="background-color: red; color: white; text-align: center;"><b>FLAMMABILITY</b></td> <td style="text-align: center;"><b>1</b></td> </tr> <tr> <td style="background-color: yellow; text-align: center;"><b>PHYSICAL HAZARD</b></td> <td style="text-align: center;"><b>0</b></td> </tr> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, = Chronic</p>	<b>HEALTH</b>	<b>0</b>	<b>FLAMMABILITY</b>	<b>1</b>	<b>PHYSICAL HAZARD</b>	<b>0</b>
<b>HEALTH</b>	<b>0</b>						
<b>FLAMMABILITY</b>	<b>1</b>						
<b>PHYSICAL HAZARD</b>	<b>0</b>						

**NFPA Flammable and Combustible Liquids Classification**  
 Combustible Liquid Class IIIB

**Full text of H-Statements**


H304                      May be fatal if swallowed and enters airways.

Sources of key data used to compile the Safety Data Sheet  
 Valvoline internal data including own and sponsored test reports  
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline s Environmental Health and Safety Department (1-800-VALVOLINE).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

- ACGIH : American Conference of Industrial Hygienists
- BEI : Biological Exposure Index
- CAS : Chemical Abstracts Service (Division of the American Chemical Society).
- CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
- FG : Food grade
- GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
- H-statement : Hazard Statement
- IATA : International Air Transport Association.

		
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IATA-DGR : Dangerous Goods Regulation by the “International Air Transport Association” (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the “International Civil Aviation Organization”

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act

DOT : Department of Transportation

FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act

HMIRC : Hazardous Materials Information Review Commission

HMIS : Hazardous Materials Identification System

NFPA : National Fire Protection Association

NIOSH : National Institute for Occupational Safety and Health

OSHA : Occupational Safety and Health Administration

PMRA : Health Canada Pest Management Regulatory Agency

RTK : Right to Know

WHMIS : Workplace Hazardous Materials Information System

# SAFETY DATA SHEET

Lysol Clean & Fresh Multi Surface Cleaner, All Scents



HEALTH • HYGIENE • HOME

## 1. Product and company identification

<b>Product name</b>	: Lysol Clean & Fresh Multi Surface Cleaner, All Scents
<b>Distributed by</b>	: Reckitt Benckiser LLC. Morris Corporate Center IV 399 Interpace Parkway (P.O. Box 225) Parsippany, New Jersey 07054-0225 +1 973 404 2600
<b>Emergency telephone number (Medical)</b>	: 1-800-338-6167
<b>Emergency telephone number (Transport)</b>	: 1-800-424-9300 (U.S. & Canada) CHEMTREC Outside U.S. and Canada (North America), call Chemtrec:703-527-3887
<b>Website:</b>	: <a href="http://www.rbnainfo.com">http://www.rbnainfo.com</a>

**Product use** : Multipurpose Cleaner

This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure, in accordance with the requirements of USDOL Occupational Safety and Health Administration.

This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations, and shown in Section 15 of this SDS.

<b>SDS #</b>	: D0020043 v7.0
<b>Formulation #:</b>	: 2018-074 (8092580 v1.0) Cherry Blossom & Pomegranate/Peony Blossom & White Peach 1876-183A (8056680 v1.0) Cherry Blossom & Pomegranate 1876-183B (8056699 v2.0) Lemon Sunflower 1876-180C (8056710 v2.0) Tangerine Mango/Hawaii Sunset Essence 1876-181 (8056716 v1.0) Waterfall Splash/Mountain Fresh & Aqua Essence 1876-180A (8056727 v1.0) Lavender Orchid
<b>EPA ID No.</b>	: 777-89
<b>UPC Code / Sizes</b>	: PET and HDPE Bottles.

## 2. Hazards identification

**Classification of the substance or mixture** : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B

### GHS label elements

<b>Hazard pictograms</b>	: Not applicable.
<b>Signal word</b>	: Warning
<b>Hazard statements</b>	: Causes eye irritation.

### Precautionary statements

<b>Code #</b> : D0020043 (US)_Bloody Mary	<b>SDS #</b> : D0020043 v7.0	<b>Date of issue</b> : 19/03/2015.	<b>1/11</b>
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## 2. Hazards identification

<b>General</b>	: Keep out of reach of children. If medical advice is needed, have product container or label at hand.
<b>Prevention</b>	: Wear eye or face protection. Wash hands thoroughly after handling.
<b>Response</b>	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: Not applicable.
<b>Supplemental label elements</b>	: None known.
<b>Hazards not otherwise classified</b>	: None known.

## 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	%	CAS number
Alcohols, C10-16, ethoxylated	2.5 - 5	68002-97-1
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	1 - 2.5	68424-85-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

## 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
<b>Inhalation</b>	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Skin contact</b>	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

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## 4. First aid measures

- Eye contact** : Causes eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : May be irritating to mouth, throat and stomach.

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : No specific data.

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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## 6. Accidental release measures

- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

### Control

#### Occupational exposure limits

Not applicable.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

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## 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid. [Transparent]
- Color** : Violet.  
Green-Yellow.  
Orange.  
Blue.  
Dark purple.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : 8.5 to 9.5 [Conc. (% w/w): 100%][25°C]
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: >93.3°C (>199.9°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.002 to 1.012 g/cm<sup>3</sup> [25°C]

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(US)\_Bloody Mary

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Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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## 9. Physical and chemical properties

- Solubility** : Easily soluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.

## 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : Do not mix with household chemicals.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	LD50 Oral	Rat	344 mg/kg	-
*Lysol Clean & Fresh Multi Surface Cleaner, All Scents	LC50 Inhalation Vapor	Rat	>2.2 mg/l	14 days

**Conclusion/Summary** : Not classified Harmful \*Information is based on toxicity test result of a similar product.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	Skin - Severe irritant	Rabbit	-	25 milligrams	-
*Lysol Clean & Fresh Multi Surface Cleaner, All Scents	Eyes - Cornea opacity	Rat	2	72 hours	7 days
	Skin - Primary dermal irritation index (PDII)	Rat	0.8	-	-

#### Conclusion/Summary

- Skin** : Slightly irritating to the skin. \*Information is based on toxicity test result of a similar product.
- Eyes** : Moderately irritating to eyes. \*Information is based on toxicity test result of a similar product.

#### Sensitization

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(US)\_Bloody Mary

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Conforms to USDOL OSHA 29CFR 1910.1200 HAZCOM

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## 11. Toxicological information

Product/ingredient name	Route of exposure	Species	Result
*Lysol Clean & Fresh Multi Surface Cleaner, All Scents	skin	Guinea pig	Not sensitizing

### Conclusion/Summary

**Skin** : Non-sensitizer to skin. \*Information is based on toxicity test result of a similar product.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : May be irritating to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
 irritation  
 watering  
 redness  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

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## 11. Toxicological information

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	Acute EC50 0.016 mg/l	Daphnia	48 hours
	Acute LC50 64 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	-	-	Readily

### Bioaccumulative potential

Not available.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

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## 12. Ecological information

**Other adverse effects** : No known significant effects or critical hazards.

## 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14. Transport information

Not a DOT controlled material (United States). Not a TDG-controlled material. This preparation is not classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).

## 15. Regulatory information

**U.S. Federal regulations** : **TSCA 4(a) proposed test rules:** Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** Not determined.  
**Clean Water Act (CWA) 311:** sodium hydroxide; ammonia, anhydrous; pentasodium triphosphate

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Ammonia	< 0.01	Yes.	500	-	100	-

**SARA 304 RQ** : 1000000000 lbs / 454000000 kg [119100408.7 gal / 450844091.4 L]

### SARA 311/312

**Classification** : Immediate (acute) health hazard

**Code #** : D0020043 (US)\_Bloody Mary      **SDS #** : D0020043 v7.0      **Date of issue** : 19/03/2015.      **9/11**

D0020043 v7.0

## 15. Regulatory information

### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Alcohols, C10-16, ethoxylated Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	2.5 - 5 1 - 2.5	No. No.	No. No.	No. No.	Yes. Yes.	No. No.

### State regulations

- Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : The following components are listed: ETHYL ALCOHOL; ALCOHOL  
**Pennsylvania** : The following components are listed: DENATURED ALCOHOL

### Label elements

- Signal word:** : CAUTION  
**Hazard statements** : May cause eye irritation.  
**Precautionary measures** : Keep out of reach of children. Avoid contact with eyes. Wash hands after handling.

## 16. Other information

**Hazardous Material Information System (U.S.A.)** :

Health	2
Flammability	0
Physical hazards	0
Personal protection	B

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)** :



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D0020043 v7.0

## 16. Other information

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

<b>Key to abbreviations</b>	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
<b>Date of issue</b>	: 19/03/2015.
<b>Date of previous issue</b>	: 17/10/2012.
<b>Version</b>	: 7
<b>Prepared by</b>	: Reckitt Benckiser LLC. Product Safety Department 1 Philips Parkway Montvale, New Jersey 07646-1810 USA. FAX: 201-476-7770

**Revision comments** : Update of SDS as per US GHS.

☑ Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



RB is a member of the CSPA Product Care Product Stewardship Program.



# SDS

## SAFETY DATA SHEET

24 Hour Emergency Telephone Number CHEMTREC 1- 800 - 424 - 9300

SUNBELT CHEMICALS 71 HARGROVE GRADE PALM COAST, FLORIDA 32137

All non-emergency questions should be directed to Customer Service (1-386-446-4595) for assistance.

## HYDROCHLORIC ACID, 31.45%

### 1. Product Identification

**Synonyms:** muriatic acid, swimming pool acid, a solution of hydrogen chloride in water.

**CAS Number:** 7647-01-0

**Product Names:** SMART Muriatic Acid, Transchem Muriatic Acid

**Part Numbers:**

118  
2118  
00001 GEN  
00001  
00005  
00015  
00030  
00055 GEN  
00055  
T330

**UPC Codes:**

017926001189  
017926121187  
017926100011  
017926000014  
017926000052  
017926000151  
017926000304  
017926001554  
017926000557  
n/a

**GTINs:**

00179260011894  
00179261211842  
00179261000118  
00179260000140  
00179260000522  
10017926000158  
10017926000301  
10017926001551  
10017926000554  
n/a

**Supplier GLN:** 00179264004142

### 2. Hazard Identification

**Emergency Overview:**  
**DANGER!**

- ▣ Causes severe skin burns and eye damage.
- ▣ May cause respiratory irritation.
- ▣ Onset of symptoms may be delayed following exposure.



**Potential Health Effects**

**Inhalation:** Corrosive! Inhalation of vapors can cause severe coughing, choking, inflammation of the nose, throat and upper respiratory tract. Severe cases can cause pulmonary edema, circulatory failure and death.

**Ingestion:** Corrosive! Swallowing hydrochloric acid can cause immediate pain and burns to the nose, mouth, throat, esophagus and gastrointestinal tract. May cause nausea, vomiting, diarrhea and in severe cases, death.

**Skin Contact:** Corrosive! Can cause redness, pain and severe burns. May cause deep ulceration and discoloration of the skin. 395

**Eye Contact:** Corrosive! Vapors are irritating and may cause damage to the eyes. Liquid contact can cause severe burns, permanent eye damage and blindness.

**Chronic Exposure:** Long term exposure to concentrated vapors may cause erosion of the teeth. Long term exposure seldom occurs due to the corrosive properties of hydrochloric acid.

**Aggravation of Pre-existing Conditions:** Persons with pre-existing conditions, such as skin disorders, or eye disease may be more susceptible to the adverse effects of hydrochloric acid.

### 3. Product Ingredients

<b>Components</b>		<b>Percent (% wgt)</b>
<b>Hydrochloric Acid</b>		31.45
CAS Number:	7647-01-0	
GHS Classification:	Corrosive 1B, STOT-SE 3; H314, H335	
<b>Water</b>		68.55
CAS Number:	7732-18-5	
GHS Classification:	Not considered hazardous according to GHS criteria.	

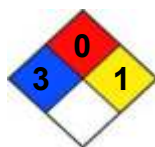
### 4. First Aid Measures

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention.

**Ingestion:** DO NOT INDUCE VOMITING. Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Skin Contact:** In case of contact with liquid, immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Seek immediate medical attention.

**Eye Contact:** Immediately flush eyes with plenty of flowing water for at least 15 minutes, while lifting upper and lower eyelids. Seek immediate medical attention.



COR

### 5. Fire Fighting Measures

**NFPA 704 ratings:** Health **3** Flammability **0** Reactivity **1** COR

**Fire:** Not considered to be a fire hazard. May react with metals to form flammable hydrogen gas.

**Explosion:** Not considered to be an explosion hazard.

**Fire Extinguishing Media:** Water or water spray. Neutralize with soda ash or slaked lime.

**Special Information:** In the event of fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus (SCBA), with full face shield, operated in positive pressure mode. Structural firefighting protective clothing is ineffective for fires involving hydrochloric acid. Stay away from ends of tanks. Cool tanks and drums with water spray until well after fire is out.

Adequately ventilate area of leak or spill. Wear appropriate personal protective equipment (PPE), as specified in Section 8. Isolate hazard area to keep unprotected personnel from entering. Stop the leak if possible. Contain and recover liquid when possible. Neutralize spilled liquid with alkaline materials (soda ash, lime). Then absorb the neutralized liquid with an inert material, such as vermiculite, sand, or earth and place recovered material in an approved, compatible chemical waste container. Do not use combustible materials such as cardboard or saw dust as an absorbent. Do not flush spilled acid to the sewer. EPA regulations require reporting spills and releases to the soil, air and water, in excess of the reportable quantity (5,000 lbs), to the National Response Center, telephone number 1-800-424-8802. Reporting to the State Emergency Response Commission (SERC) warning point and local authorities (911) is also required.

## 7. Handling and Storage

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of sunlight and direct heat, water and incompatible materials. Do not wash out container and use it for other purposes. When diluting, the acid should always be added slowly to the water. Never use hot water and never add water to acid. Water added to acid can cause uncontrolled boiling and splashing. Empty acid containers may be hazardous since they retain acid residues of liquid and vapor. Observe all warnings and precautions stated on the acid container label. Wear personal protective equipment when handling, opening containers and using hydrochloric acid.

## 8. Exposure Control and Personal Protection

### Airborne Exposure Limits:

OSHA Permissible Exposure Limit (PEL)	5 ppm (Ceiling)	(7 mg/m <sup>3</sup> )
NIOSH Relative Exposure Level (REL)	5 ppm (Ceiling)	(7 mg/m <sup>3</sup> )
ACGIH Threshold Limit Value (TLV)	2 ppm (Ceiling)	(TWA)
NIOSH Immediately Dangerous Level (IDLH)	50 ppm	

**Ventilation:** A system of local and/or general exhaust is recommended to keep exposure below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the acid at the source, preventing dispersion into the occupied area.

**Personal Respirators (NIOSH Approved):** If exposure limits are exceeded and engineering controls are not feasible, a full face respirator with an acid gas cartridge may be worn up to 50 times the permissible exposure limit (PEL). For emergencies or instances where the exposure levels are not known, use full face, positive pressure, air supplied respirator. **WARNING!** Air purifying respirators do not provide protection in oxygen deficient atmospheres.

**Skin Protection:** Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, are needed in areas of unusual exposure to prevent skin contact.

**Eye Protection:** Use safety glasses with side shields, chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick drench facilities (safety shower) in work areas.

## 9. Physical and Chemical Properties

**Appearance:** Clear, colorless liquid.

**Odor:** Pungent, acrid odor.

**Solubility:** Infinitely soluble in water.

**Specific Gravity:** 1.155 – 1.162

**Percent Volatile:** 100%

**Boiling Point:** 180 F – 220 F

**Vapor Density:** 1.27 (Air =1)

**Vapor Pressure:** 35 mm Hg @ 86 F

**Evaporation Rate:** < 1 (butyl acetate = 1)

**pH:** < 1

## 10. Stability and Reactivity

**Stability:** Stable under ordinary conditions of use and storage. Avoid heat and direct sunlight.

**Hazardous Decomposition Products:** When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic, corrosive fumes. Thermal decomposition in the presence of oxidizing materials produces toxic chlorine fumes and explosive hydrogen gas.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and alkaline materials. Incompatible with cyanide, sulfides, sulfites and formaldehyde.

## 11. Toxicological Information

Lethal inhaled concentration (LC50) in rats: 3,124 ppm/1 hr  
Not listed on the OSHA, NTP or IARC list of carcinogens.

## 12. Ecological Information

**Environmental Fate:** Rapidly hydrolyzes when exposed to water. Exhibits extensive evaporation from soil surfaces. Transport through soil may contaminate ground water and will dissolve some of the soil materials (especially those with carbonate bases). Acid will be neutralized to a large degree by contact with carbonates in soil.

**Environmental Toxicity:** Lethal to fish from 25 mg/l and up. Toxic to aquatic organisms as a result of pH shift.

## 13. Disposal Considerations

Whatever cannot be recovered or recycled should be handled as Characteristic Hazardous Waste (pH <2.0) and sent to a RCRA approved waste facility. State and local disposal regulations may differ from federal regulations. Dispose of container and contents in accordance with federal, state and local laws.

## 14. Transport Information

**Proper Shipping Name:** HYDROCHLORIC ACID

**Full Shipping Description:** HYDROCHLORIC ACID, 8, UN1789, PGII

## 15. Regulatory Information

**Regulated Ingredient:** hydrogen chloride (CAS # 7647-01-0)

**U.N. GHS Classification & Labeling Information:**

Classification: Corrosive 1B  
Specific Target Organ Toxicity (STOT)  
- Single Exposure 3



Signal Word: DANGER

H Statements: H314: Causes severe skin burns and eye damage.  
H335: May cause respiratory irritation.

P Statements: P307+315: If exposed, get immediate medical attention.  
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

**U. S. Federal Regulatory Information**

EPA Clean Air Act: Listed as Hazardous Air Pollutant  
EPA Clean Water Act: Listed  
TSCA: The ingredients of this product are listed on TSCA inventory (40 CFR 710).  
RCRA: This product as supplied is a D002 (corrosive) waste. pH < 2  
CERCLA RQ: 5000 lbs. (hydrochloric acid)  
SARA Title III § 302: None

SARA Title III § 311/312: Acute Health Hazard                      SARA Title III § 313: Listed

**Canadian Regulatory Information:**

WHMIS Category: Class E Corrosive Material  
Ingredient Disclosure List: Listed  
Domestic Substances List (DSL): Listed



**16. Other Information**

**Label Hazard Warning:**

**POISON DANGER CORROSIVE, MAY BE FATAL IF SWALLOWED OR INHALED. LIQUID AND MIST CAN CAUSE SEVERE BURNS TO ALL BODY TISSUE.**

**Label Precautions:** Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling. KEEP OUT OF REACH OF CHILDREN.

**Label First Aid:** If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water, for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. SEEK MEDICAL ATTENTION.

**Disclaimer Notice:**

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Sunbelt Chemicals Corp. at the time it was prepared. Sunbelt Chemicals Corp. assumes no liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, Sunbelt Chemicals Corp. cannot guarantee that these are the only hazards that exist. Sunbelt Chemicals Corp. assumes no legal responsibility for loss, damage or expense arising out of, or in any way connected with, the handling, storage, use or disposal of this product.



## SAFETY DATA SHEET

**RECTORSEAL® T PLUS 2®**

Pipe Thread Sealant with PTFE

## SECTION 1 – PRODUCT AND COMPANY INFORMATION

## Product Name

Rectorseal® T Plus 2®

## Product Codes

23112, 23191, 23271, 23391, 23431, 23551, 23552, 23631,  
23633, 23710, 23714

## Chemical Family

Organic

## Use

Pipe thread sealant

## Manufacturer's Name

The RectorSeal Corporation  
2601 Spenwick Drive  
Houston, Texas 77055 USA

## Date of Validation

January 23, 2015

## Date of Preparation

May 30, 2013

## HMIS Codes

Health	1
Flammability	1
Reactivity	0
PPI	B

## Emergency Telephone No.

Chemtrec 24 Hours  
(800)-424-9300 USA  
(703)-527-3887 International

## Technical Service Telephone No.

(800)-231-3345 or (713)-263-8001

## SECTION 2 – HAZARDS IDENTIFICATION

**GHS CLASSIFICATION****Physical Hazards**

None

**Health Hazards**

## Acute Toxicity:

Oral: Not Classified

Dermal: Not Classified

Inhalation: Not Classified

Skin Corrosion/Irritation: Not Classified

Serious Eye Damage/Eye Irritation: Not Classified

Respiratory or Skin Sensitization: Not Classified

Germ Cell Mutagenicity: Not Classified

Carcinogenicity: Not Classified

Reproductive Toxicology: Not Classified

Target Organ Systemic Toxicity - Single Exposure: Not Classified

Target Organ Systemic Toxicity - Repeated Exposure: Not Classified

Aspiration Toxicity: Not Classified

**ENVIRONMENTAL HAZARDS**

Hazardous to the Aquatic Environment: Not Classified  
 Acute aquatic toxicity: Not Classified  
 Chronic aquatic toxicity: Not Classified  
 Bioaccumulation potential: Not Classified  
 Rapid degradability: Not Classified

**GHS Label elements, including precautionary statements**

Pictogram: None

Signal Word: None

Hazard Statements: None

Precautionary Statements:

P102 - Keep out of reach of children.  
 P264 - Wash hands thoroughly after handling.

May produce slight to moderate skin and eye irritation.

**Route Of Exposure, Signs And Symptoms**

**INHALATION**

None known.

**EYE CONTACT**

Irritation, watering may occur.

**SKIN CONTACT**

Frequent or prolonged contact may irritate and cause dermatitis.

**INGESTION**

May cause nausea and vomiting. Not expected to produce toxic effects unless large amounts are ingested.

**SUMMARY OF CHRONIC HAZARDS**

None known.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

Individuals with pre-existing or chronic diseases of the eyes, skin or persons with chemical sensitivity may have increased susceptibility to excessive exposures.

**SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS**

% by WT	CAS Number	INGREDIENT	UNITS
---------	------------	------------	-------

None as defined by OSHA Hazard Communication Standard 29 CFR 1910.1200.



## SECTION 4 – FIRST AID MEASURES

If inhaled:	N/A
If on skin:	Wash with soap and water. Seek medical attention if irritation persists.
If in eyes:	Flush with large amounts of water. Get medical attention if irritation persists.
If swallowed:	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

## SECTION 5 – FIRE FIGHTING MEASURES

### Extinguishing Media

Foam, dry chemical, carbon dioxide or water fog.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10).

**Unusual Fire And Explosion Hazards:** Heat may build up pressure and rupture closed containers. Above 500°F (260°C) the fumes are acutely toxic.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken In Case Material Is Released Or Spilled:** Wipe or scrape up spilled material to prevent footing hazard and place in trash.

## SECTION 7 – HANDLING AND STORAGE

**Precautions To Be Taken In Handling And Storing:** Keep container closed and upright when not in use.

**Other Precautions:** Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues; treat as if full and observe all products precautions. Do not reuse empty containers.

KEEP OUT OF REACH OF CHILDREN.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiratory Protection (Specify Type):** None required.

**Ventilation - Local Exhaust:** N/A

**Special:** N/A

**Mechanical (General):** N/A

**Other:** N/A

**Protective Gloves:** Wear rubber gloves.

**Eye Protection:** Chemical splash goggles (ANSI Z-87.1 or equivalent)

**Other Protective Clothing Or Equipment:** Coveralls recommended.

**Work/Hygienic Practices:** Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling point:	N/D
Specific gravity (H2O = 1):	1.32
Vapor pressure (mmHg):	< 1 @77°F (25°C)
Melting point:	N/A
Vapor Density (Air = 1):	N/A
Evaporation rate (Ethyl Acetate = 1):	N/A
Appearance/Odor:	White paste/Slight odor
Solubility in water:	Negligible
Volatile Organic Compounds (VOC) Content (theoretical percentage by weight):	0% or (0 g/L)
Flash point:	>300°F (149°C) SETA CC
Lower explosion limit:	N/D
Upper explosion limit:	N/D

## SECTION 10 – STABILITY AND REACTIVITY

**Stability:** Stable

**Conditions To Avoid:** None known.

**Incompatibility (Materials To Avoid):** Gaseous oxygen and strong oxidizing materials.

**Hazardous Decomposition Products:** CO, CO<sub>2</sub> and fragmented hydrocarbons.

**Hazardous Polymerization:** Will not occur.

## SECTION 11 – TOXICOLOGY INFORMATION

### Chronic Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

#### Toxicology Data

##### Ingredient Name

Oral-Rat LD50:	N/A
Inhalation-Rat LC50:	N/A

## SECTION 12 – ECOLOGICAL INFORMATION

### Ecological Data

#### Ingredient Name:

Food Chain Concentration Potential	N/A
Waterfowl Toxicity	N/A
BOD	N/A
Aquatic Toxicity	N/A

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste Classification:** Non-regulated solid waste

**Disposal Method:** Approved landfill

Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.

## SECTION 14 – TRANSPORTATION INFORMATION

DOT:	Non-regulated
Ocean (IMDG):	Non-regulated
Air (IATA):	Non-regulated
WHMIS (Canada):	Non-regulated

## SECTION 15 – REGULATORY INFORMATION

### Regulatory Data

Ingredient Name:

SARA 313	N/A
TSCA Inventory	All components listed
CERCLA RQ	N/A
RCRA Code	N/A

## SECTION 16 – OTHER INFORMATION

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made.

Consult RectorSeal for further information: (713) 263-8001

<b>SECTION 1 : IDENTIFICATION</b>			
<b>PRODUCT IDENTIFIER:</b>	ITP P.E. FOAM PROFILES AND E TRUSIONS (WITH BLACK PIGMENT F/R)	<b>MANUFACTURER NAME &amp; ADDRESS:</b> INDUSTRIAL THERMO POLYMERS (Owned and Operated by Armacell Canada Inc.) 153 VAN KIRK DRIVE BRAMPTON, ONTARIO , L7A 1A4	
<b>CHEMICAL IDENTITY:</b>	POLYETHYLENE	<b>PHONE NO.:</b>	1-905-846-3666
<b>RECOMMENDED USE</b>	PACKAGING, CUSHIONING, SOUND DAMPENING, INSULATION, SEALING, FLOATATION etc.	<b>FAX NO.:</b>	1-905-846-0363
<b>RESTRICTION OF USE</b>	NONE	<b>EMERGENCY PHONE NO.:</b>	1-800-387-3847
<b>SECTION 2 : HAZARD(S) IDENTIFICATION</b>			
<p>- POLYETHYLENE E TRUDED FOAM PRODUCTS ARE CLASSIFIED BY OSHA AS NON HA ARDOUS .</p> <p>- PE FOAM PRODUCTS ARE MADE FROM POLYETHYLENE RESIN , ADDITIVES AND ISOBUTANE .(MORE DETAILS IN SEC.3.)</p> <p>- ISOBUTANE, A FLAMABLE HYDROCARBON IS USED AS BLOWING AGENT. SMALL TRACES OF THIS GAS MAY BE PRESENT IN THE PRODUCT. THIS GAS MAY ACCUMULATE AT HA ARDOUS CONCENTRATIONS ABOVE THE LOWER FLAMMABLE LIMITS (LFL) IF LARGE QUANTITIES OF THIS PRODUCT ARE STORED IN UNVENTILATED AREAS.</p>			
<b>ROUTES OF EXPOSURE:</b>	SWALLOWING <input checked="" type="checkbox"/>	SKIN ABSORBTION <input type="checkbox"/>	INHALATION <input checked="" type="checkbox"/> SKIN CONTACT <input checked="" type="checkbox"/> EYE CONTACT <input checked="" type="checkbox"/>
<b>EFFECTS OF A SINGLE (ACUTE) OVEREXPOSURE BY:</b>			
<b>SWALLOWING:</b>	CHOKING - MECHANICAL BLOCKAGE		
<b>SKIN ABSORBTION:</b>	NOT LIKELY.		
<b>INHALATION:</b>	FOAM DUST MAY CAUSE RRITATION TO NOSE , THROAT OR LUNGS.		
<b>SKIN CONTACT:</b>	NON IRRITATING TO SKIN CONTACT		
<b>EYE CONTACT:</b>	EYE IN URY OR FOAM DUST MAY CAUSE IRRITATION TO EYES		
<b>OTHER EFFECTS</b>	NOT KNOWN		
<b>SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS</b>			
INGREDIENTS	CAS NO.	WEIGHT %	EXPOSURE LIMITS ACGIH - TLV*
POLYETHYLENE	9002-88-4	75% -100%	NA
ISOBUTANE	75-28-5	-	800 PPM TWA
CARBON BLACK	1333-86-4	0% - 5%	3.5 mg/m <sup>3</sup>
ANTIMONY COMPOUND	1309-64-4	0% - 5%	0.5 mg /m <sup>3</sup>
Applicable provincial TLV s may differ			
Specific chemical names and percentage in the mix has been withheld to protect trade secret.			
<b>SECTION 4 : FIRST AID MEASURES</b>			
<b>SWALLOWING:</b> CONSULT PHYSICIAN		<b>SKIN CONTACT:</b> WASH WITH SOAP AND WATER	
<b>INHALATION:</b> MOVE TO FRESH AIR. SEEK MEDICAL ATTENTION IF BREATHING PROBLEMS PERSISTS.		<b>EYE CONTACT:</b> FLUSH EYES WITH CLEAN LUKEWARM WATER. CONSULT PHYSICIAN.	
<b>SECTION 5 : FIRE FIGHTING MEASURES</b>			
<p>1. PE FOAM IS COMBUSTIBLE AND SHOULD NOT BE E POSED TO SPARKS OR OPEN FLAME. RESULTS IN CLASS A FIRE.</p> <p>2. FIRE TO BE E TINGUISHED BY USING WATER FOG OR FINE SPRAY. SOAK THE PRODUCT WITH WATER TO COOL AND SMOTHER.</p> <p>3. FIRE WILL CAUSE DENSE SMOKE. USE SELF-CONTAINED BREATHING APPRATUS AND FULL PROTECTIVE CLOTHING.</p> <p>4. FIRE WILL RESULT IN INTENSE HEAT AND SMOLDERING. E TINGUISHMENT IS BY COOLING WITH WATER.</p> <p>5. OTHER FIRE E TINGUISHERS (DRY CHEMICAL, FOAM OR CO2 E TINGUISHERS) MAY BE USED FOR E TINGUISHMENT.</p> <p>6. CHEMICAL/GASEOUS HA ARDS LIKE CO, CO2 AND CARBON MAY BE PRODUCED FROM THE SMOLDERING SUBSTANCES AND FIRE.</p>			

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

PE FOAM IS COMBUSTIBLE. SHOULD NOT BE EXPOSED TO SPARKS OR OPEN FLAME. RESULTS IN CLASS A FIRE.

**SECTION 7: HANDLING AND STORAGE**

- PE FOAM IS COMBUSTIBLE AND SHOULD NOT BE EXPOSED TO SPARKS OR OPEN FLAME. WHEN BURNS, WILL RELEASE TOXIC GASES LIKE CO.

-WHEN FABRICATING OR CUTTING, THIS PRODUCT MAY RELEASE TRAPPED ISOBUTANE FROM THE FOAM CELLS. ADEQUATE VENTILATION IS A MUST.

- PE FOAM SHOULD BE STORED IN COOL, DRY AND WELL VENTILATED LOCATIONS. ISOBUTANE GAS MAY ACCUMULATE AROUND THE PRODUCT.

- PE FOAM IS INCOMPATIBLE WITH STRONG OXIDIZING AGENTS LIKE, CL<sub>2</sub>, H<sub>2</sub>O<sub>2</sub>, KNO<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub>.

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

- NOT NECESSARY OTHER THAN STATED IN SECTION 2

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>PHYSICAL STATE:</b>	SOLID	<b>FREEZING POINT:</b>	N/A	<b>SPECIFIC GRAVITY VAPOUR</b>	N/A
<b>BOILING POINT 760 mm Hg:</b>	N/A	<b>VAP. PRESS at 20°C:</b>	N/A	<b>MOLECULAR WEIGHT:</b>	N/A
<b>SPECIFIC GRAVITY</b>	0.01 - 0.15	<b>SOLUBILITY IN WATER</b>	INSOLUBLE	<b>COEFFICIENT OF WATER / OIL DISTRIBUTION:</b>	N/A
<b>MELTING POINT:</b>	+ 212 F	<b>EVAPORATION RATE</b>	N/A		
<b>DENSITY</b>	0-30 lbs/cuft	<b>% VOLATILES BY VOLUME:</b>	N/A	<b>VAPOUR DENSITY</b>	N/A
<b>APPEARANCE</b>	CLOSED CELL FOAM	<b>ODOR:</b>	NEGLIGIBLE	<b>ODOR THRESHOLD:</b>	N/A

**SECTION 10 : STABILITY AND REACTIVITY**

- PE FOAM IS STABLE AND NON-REACTIVE. OTHER THAN CONDITIONS STATED IN SECTION 5, 6, 7

**SECTION 11 : TOXICOLOGICAL INFORMATION**

- PE FOAM HAS NO CARCINOGENIC SUBSTANCES. IT IS NOT LISTED IN : IARC, NTP

**ROUTES OF EXPOSURE :** SWALLOWING | FOAM DUST INHALATION | SKIN CONTACT | EYE CONTACT

EFFECTS OF ABOVE EXPOSURE STATED IN SECTION 4

**SECTION 12 : ECOLOGICAL INFORMATION**

- PE FOAM DOES NOT INHIBIT ANY SIGNIFICANT BIODEGRADATION.

**SECTION 13 : DISPOSAL CONSIDERATIONS**

- PE FOAM CAN BE REPROCESSED OR CAN BE DISPOSED OFF IN LANDFILL

**SECTION 14 : TRANSPORT INFORMATION**

- PE FOAM HAS SOME RESIDUAL ISOBUTANE AND HENCE TO BE TRANSPORTED IN VENTILATED TRAILERS.

**SECTION 15 : REGULATORY INFORMATION**

- PE FOAM HAS NO CARCINOGENIC SUBSTANCES AND IS CLASSIFIED AS NON HAZARDOUS UNDER THE FEDERAL OSHA STANDARDS.

**SECTION 16 : OTHER INFORMATION**

PREPARED BY / DEPARTMENT	PHONE NUMBER	DATE UPDATED
HARENDRA RATHOD / QA DEPARTMENT	905-846-3666 / 1-800-387-3847	April 16, 2015

FOR INFORMATION : Visit Web: [www.tundrafoam.com](http://www.tundrafoam.com) or Email: [info@tundrafoam.com](mailto:info@tundrafoam.com)

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## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### Product identifier

Product name: Glass Mineral Wool with ECOSE® Technology

Synonyms, trade names: EcoBatt® (Unfaced and Faced) Building Insulation, EcoBatt® QuietTherm® (Unfaced and Faced) Building Insulation, Acoustical/IB Board, Acoustical Board Smooth, Air Duct Board (Atmosphere™, Eclipse®), KB Blanket, Black Acoustical Board, Black Diffuser Board, Condensation Control Blanket, Duct Liner (Atmosphere™ and Sonic XP®), Duct Wrap Faced and Unfaced (Atmosphere™, Friendly Feel®), Earthwool® 1000° Pipe Insulation\*, ET Batt\*, ET Blanket\*, ET Board\*, ET Panel\*, Equipment Liner M, Everbilt (Unfaced and Faced) Building Insulation, Fabrication Board\*, Flexible Duct Material, Guardian (Unfaced and Faced) Building Insulation, Hullboard\*, Insulation Board (Faced and Unfaced)\*, KF-110\*, KFR/ET Range Insulation\*, KN Series\*, Manufactured Housing Duct Board, Manufactured Housing Insulation, Metal Building Insulation, Metal Building Filler Insulation, Pipe & Tank Insulation\*, Earthwool® Redi-Klad® 1000° Pipe Insulation\*, Rigid Plenum Liner, Sill Sealer, Wall & Ceiling Liner M (\* See Section 2, 8, 10)

Revision: Date: 2015.04.30

### Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.

Uses advised against: None known.

### Details of the supplier of the safety data sheet

Head Office Knauf Insulation LLC  
One Knauf Drive  
Shelbyville  
IN 46176-1496  
Tel:800 825 4434  
sds@knaufinsulation.com  
www.knaufinsulation.us

Region: United States, Central & South America's

### Emergency telephone number

Emergency telephone: Within United States 24hour: Chemtree Tel: 800 424 9300

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## SECTION 2: HAZARDS IDENTIFICATION

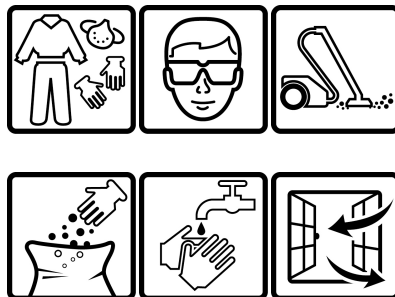
### Classification of the substance or mixture

Classification according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)  
: The product is not classified.

### Label elements

Contains: None.  
Hazard pictogram: None.  
Signal word: None.  
Hazard statement: None.  
Precautionary statements:  
- Prevention: None.  
- Response: None.  
- Storage: None.  
- Disposal: None.  
Supplemental label information: None.

The following sentences and pictograms are printed on packaging: The mechanical effect of fibres in contact with skin may cause temporary itching.



[www.knaufinsulation.com/comfort-and-handling](http://www.knaufinsulation.com/comfort-and-handling)

### Other hazards

None.

#### Hazard summary

Physical hazards: None.

Health hazards: Mechanical irritation of the skin, eyes and upper respiratory system.

Environmental hazards: None.

Main symptoms: Contact with skin, eyes and upper respiratory system may cause mechanical irritation.

Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

\* Heat-Up Precautions: When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. - see section 8 & 10



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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Substances

<u>%:</u>	<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
87-100	-	Biosoluble glass mineral wool	-	(1), (2), (3)
0-13	-	Thermo set, inert polymer bonding agent derived from plant starches	-	(1)

Notes:

(1) Specific chemical identity and/or exact percent concentration is withheld as trade secret.

(2) Man made vitreous (silicate) fibres with random orientation with alkaline oxide and alkali earth oxide (Na<sub>2</sub>O+K<sub>2</sub>O+CaO+MgO+BaO) content greater than 18% by weight meeting the requirements of Note Q of European regulation n° 1272/2008 and therefore not classified carcinogenicity.

(3) All Knauf Insulation products covered by this SDS are independently certified by EUCEB to be manufactured using biosoluble glass formulations and thus exempt from labeling under NTP or California Prop 65 requirements.

### SECTION 4: FIRST AID MEASURES

#### Description of first aid measures

##### General Information:

Show this Safety Data Sheet to the medical professional in attendance. If symptoms occur, follow first aid measures as appropriate.

Notes to Physician: None specific.

Inhalation: Remove from exposure. Rinse the throat and clear dust from airways.

Skin contact: If mechanical irritation occurs, remove contaminated clothing and wash skin gently with cold water and soap.

Eye contact: Rinse abundantly with water for at least 15 minutes.

Ingestion: Drink plenty of water if accidentally ingested.

#### Most important symptoms and effects, both acute and delayed

Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

#### Indication of any immediate medical attention and special treatment needed

If any adverse reaction or discomfort continues from any of the above exposures, seek professional medical advice.

Medical attention/treatments: None specific.

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## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

Water, foam, carbon dioxide (CO<sub>2</sub>), and dry powder.

### Special hazards arising from the substance or mixture

Products do not pose a fire hazard in use; however, some packaging materials or facings may be combustible. Products of combustion from product and packaging - carbon dioxide, carbon monoxide and some trace gases such as ammonia, nitrogen oxides and volatile organic substances.

### Advice for firefighters

In large fires in poorly ventilated areas or involving packaging materials respiratory protection / breathing apparatus may be required.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Personal precautions: Minimise direct contact with skin in order to prevent mechanical itching. In dusty environments, use suitable respiratory protection such as 3M 8210, N95 or equivalent. Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments. Where possible, use natural ventilation during installation in order to minimise dust levels.

After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching. Dispose of surplus product in accordance with local regulations.

Emergency procedures: Use personal protection recommended in Section 8 of the SDS.

### Environmental precautions

Not relevant.

### Methods and material for containment and cleaning up

In dusty environments, use vacuum equipment where possible to minimise dust levels.

### Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

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## **SECTION 7: HANDLING AND STORAGE**

### **Precautions for safe handling**

Assure proper respiratory protection if dust potential exceeds PEL/TLV.

### **Conditions for safe storage, including any incompatibilities**

To ensure optimum product performance; when packaging is removed or opened; products should be stored inside or covered to protect them from ingress of rain water or snow.

Storage arrangements should ensure stability of stacked products and use on a first in first out basis (FIFO) is recommended.

### **Specific end use(s)**

Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

United States

Occupational exposure limits:

<u>CAS- No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>	<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
-	Glass wool fibers	-	1 fiber/ml	TWA	A3	ACGIH
-	Particulates not otherwise regulated (PNOR), respirable fraction	-	5 mg/m3	TWA	-	OSHA
-	Particulates not otherwise regulated (PNOR), total dust	-	15 mg/m3	TWA	-	OSHA

Notes: (A3) - Fibers longer than 5 µm; diameter less than 3 µm; aspect ratio greater than 5:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective) phase contrast illumination.  
- Biosoluble glass mineral wool fibre - see section 3

### Exposure controls

Engineering measures: Maintain sufficient mechanical or natural ventilation to assure fiber concentrations remain below PEL/TLV. Use local exhaust if necessary. Power equipment should be equipped with properly designed dust collection devices.

Eye/face protection: Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments.

Skin protection: Minimise direct contact with skin in order to prevent mechanical itching.

Respiratory equipment: In dusty environments, use suitable respiratory protection.

Hygiene measures: After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching.

Environmental Exposure Controls: Not relevant.

\* Heat-Up Precautions: When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. The duration of release is dependant upon the thickness of the insulation, binder content and the temperature applied. Adequate ventilation should be provided. In confined spaces or where ventilation is not possible, occupants should wear appropriate self-contained breathing apparatus.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<u>Appearance:</u>	Solid.
<u>Form:</u>	Rolls., loose fibre, Panel.
<u>Colour:</u>	Brown.
<u>Odor:</u>	Not relevant.
<u>Odor threshold:</u>	Not relevant.
<u>pH:</u>	Not relevant.
<u>Melting point / freezing point:</u>	Not relevant.
<u>Initial boiling point and boiling range:</u>	Not relevant.
<u>Flash point:</u>	Not relevant.
<u>Auto Ignition Temperature (°F)</u>	Not relevant.
<u>Flammability (solid, gas):</u>	Not relevant.
<u>Flammability limit - lower (%):</u>	Not relevant.
<u>Flammability limit - upper (%):</u>	Not relevant.
<u>Vapor pressure:</u>	Not relevant.
<u>Vapor density:</u>	Not relevant.
<u>Evaporation rate:</u>	Not relevant.
<u>Relative density:</u>	9 - 35 kg/m <sup>3</sup>
<u>Partition coefficient (n-octanol/water):</u>	Not relevant.
<u>Solubility:</u>	Generally chemically inert and insoluble in water.
<u>Decomposition Temperature (°F)</u>	Not relevant.
<u>Viscosity:</u>	Not relevant.
<u>Other data:</u>	Nominal diameter of fibres. 3 - 5µm  Length weight geometric mean diameter less 2 standard errors: < 6 µm  Orientation of fibres: Random.

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## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

None.

### Chemical stability

Binder will decompose above 400°F

### Possibility of hazardous reactions

None.

### Conditions to avoid

Heating above 400°F

### Incompatible materials

Incompatible materials: Hydrofluoric acid will react with and dissolve glass.

### Hazardous decomposition products

None in normal conditions of use.

### \* Heat-Up Precautions:

When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. The duration of release is dependant upon the thickness of the insulation, binder content and the temperature applied. Adequate ventilation should be provided. In confined spaces or where ventilation is not possible, occupants should wear appropriate self-contained breathing apparatus.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on toxicological effects

Ingestion: Non-hazardous when ingested.  
 Inhalation: Mechanical irritation to upper respiratory tract.  
 Skin contact: Mechanical irritation to skin.  
 Eye contact: Mechanical irritation to eyes.  
 Symptoms: Contact with skin, eyes and upper respiratory system may cause mechanical irritation.  
 Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

### Information on toxicological effects:

Acute toxicity: No data were identified for the product as a whole. Data are for constituents:

Product name: Thermo set, inert polymer bonding agent derived from plant starches.

Result - LD50

Species - n/a

Dose - n/a

Exposure - n/a

Product name: Biosoluble glass mineral wool

Result - LD50

Species - n/a

Dose - n/a

Exposure - n/a

Serious eye damage/irritation: May cause mechanical irritation to eyes.  
 Skin Corrosion/Irritation: May cause mechanical irritation to skin.  
 Respiratory or skin sensitization: No data were identified for this product or its constituents.  
 Germ cell mutagenicity: No data were identified for this product or its constituents.  
 Carcinogenicity: Results from a biopersistence test by intratracheal instillation has shown that fibers in this product longer than 20 µm have a weighted half-life less than 40 days, thus this product is not classified as a carcinogen. None of the components of this product are listed as a carcinogen by OSHA, IARC or NTP.

Reproductive Toxicity: No data were identified for this product or its constituents.

Developmental Effects: No data were identified for this product or its constituents.

STOT - Single exposure: No data were identified for this product or its constituents.

STOT - Repeated exposure: No data were identified for this product or its constituents.

Aspiration hazard: Not relevant.

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## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

Ecotoxicity: This product is not ecotoxic to air, water or soil, by composition.

### Persistence and degradability

Inert inorganic product with Thermo set, inert polymer bonding agent derived from plant starches; 0 - 13%

### Bioaccumulative potential

Will not bio-accumulate.

### Mobility in soil

Not considered mobile. Less than 1% leachable organic carbon if landfilled.

### Results of PBT and vPvB assessment

Not relevant.

### Other adverse effects

None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

Waste from residues: Dispose of in accordance with all applicable regulations.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal methods: This product is not regulated under RCRA Hazardous Waste Regulations. May be disposed in landfill. If unsure, contact the local office of the USEPA, your local public health department or the local landfill regulators.

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## **SECTION 14: TRANSPORT INFORMATION**

### **UN number**

Not regulated.

### **UN proper shipping name**

Not regulated.

### **Transport hazard class(es)**

Not regulated.

### **Packing group**

Not regulated.

### **Environmental hazards**

Not regulated.

### **Special precautions for user**

Not regulated.

### **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not regulated.

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## SECTION 15: REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

OSHA Status: This product is regulated as a nuisance dust under OSHA criteria. Classified as not hazardous.

TSCA listed: All components of this product are listed or exempt from listing on the TSCA inventory.

CERCLA Reportable Quantity: Not regulated.

SARA Title III:

Section 302 Extremely Hazardous: Not regulated.

Section 311/312 Hazard Categories: Not regulated.

Section 313 Toxic Chemicals: Not listed.

California Safe Drinking Water and Toxic Enforcement Act (Prop. 65): This product is exempt from labeling requirements under this Act.

In accordance with industry practice, Knauf Insulation has decided to continue to provide its customers with the appropriate information for the purpose of assuring safe handling and use of mineral wool throughout the product life.

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## SECTION 16: OTHER INFORMATION

Label in accordance with OSHA HCS (2012): This product is not classified as hazardous.

Abbreviations and acronyms used in the safety data sheet:

CAS: Chemical Abstract Service  
CFR: Code of Federal Regulations  
EUCEB: European Certification Board for Mineral Wool Products  
IARC: International Agency for Research on Cancer  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration (United States)  
PEL: Permissible Exposure Limit  
PBT: Persistent, Bioaccumulative and Toxic  
SARA: Superfund Amendments and Reauthorization Act  
SDS: Safety Data Sheet  
STEL: Short Term Exposure Limit  
TLV: Threshold Limit Value  
TSCA: Toxic Substances Control Act  
USEPA: United States Environmental Protection Agency

All products manufactured by Knauf Insulation are made of non-classified fibres and are certified by EUCEB.

Products meeting EUCEB certification requirements can be recognised by the EUCEB logo printed on the packaging.

Further information can be obtained from:

[www.euceb.org](http://www.euceb.org)  
[www.knaufinsulation.com](http://www.knaufinsulation.com)



Additional information:

Change to Sections: New document format

Moreover, in 2001, the IARC, reclassified glass mineral wool fibres from Group 2B (possibly carcinogenic) to «not classifiable as to their carcinogenicity to humans (Group 3)». (See Monograph Vol 81, <http://monographs.iarc.fr/>).

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The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

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**Safety Data Sheet**

according to Hazard Communication Standard; 29 CFR 1910.1200



## PLEDGE® EVERYDAY CLEANER MULTI SURFACE - CLEAN CITRUS SCENT

Version 1.0

Print Date 11/01/2015

Revision Date 10/08/2015

SDS Number 350000021022

GEN SOF Number 45845

**1. PRODUCT AND COMPANY IDENTIFICATION****Product information**

**Product name** : PLEDGE® EVERYDAY CLEANER MULTI SURFACE - CLEAN CITRUS SCENT

**Recommended use** : Speciality Cleaner

**Manufacturer, importer, supplier** : S.C. Johnson Son, Inc.  
1525 Howe Street  
Racine WI 53403-2236

**Telephone** : +18005585252  
**Emergency telephone number** : 24 Hour Medical Emergency Phone: (866)231-5406  
24 Hour International Emergency Phone: (703)527-3887  
24 Hour Transport Emergency Phone: (800)424-9300

**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture****Globally Harmonized System (GHS) Classification**

Hazard classification	Hazard category	Hazards identification
Flammable liquids	Category 4	Combustible liquid.

**Labelling****Hazard statements**

Combustible liquid.

**Precautionary statements**

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Store in a well-ventilated place. Keep cool.

Dispose of contents/ container to an approved incineration plant.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Wear protective gloves.

**Other hazards** : None identified

**Safety Data Sheet**

according to Hazard Communication Standard; 29 CFR 1910.1200



## PLEDGE® EVERYDAY CLEANER MULTI SURFACE - CLEAN CITRUS SCENT

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Print Date 11/01/2015

Revision Date 10/08/2015

SDS Number 350000021022  
GEN SOF Number 45845

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Weight percent
Ethyl alcohol	64-17-5	0.10 - 1.00

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

For additional information on product ingredients, see [www.whatsinsidesc ohnson.com](http://www.whatsinsidesc ohnson.com).

### 4. FIRST AID MEASURES

- Eye contact** : No special requirements
- Skin contact** : No special requirements
- Inhalation** : No special requirements.
- Ingestion** : No special requirements

### 5. FIREFIGHTING MEASURES

- Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during firefighting** : Flammable liquid. Vapors are heavier than air and may travel to a source of ignition and flash back. Liquid run-off to sewers may create fire/explosion hazard. Container may melt and leak in heat of fire.
- Further information** : Although this product has a flash point below 200 Deg F, it is an aqueous solution containing an alcohol and does not sustain combustion. Cool and use caution when approaching or handling fire-exposed containers. Fight fire with normal precautions from a reasonable distance. For large quantities of

**Safety Data Sheet**

according to Hazard Communication Standard; 29 CFR 1910.1200



## PLEDGE® EVERYDAY CLEANER MULTI SURFACE - CLEAN CITRUS SCENT

Version 1.0

Print Date 11/01/2015

Revision Date 10/08/2015

SDS Number 350000021022  
GEN SOF Number 45845

flammable liquids, consider containment to prevent the spread of fire. Standard procedure for chemical fires. Wear full protective clothing and positive pressure self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Wear personal protective equipment. Wash thoroughly after handling.
- Environmental precautions** : Outside of normal use, avoid release to the environment.
- Methods and materials for containment and cleaning up** : Use only non-sparking equipment. Dike large spills. Clean residue from spill site.

### 7. HANDLING AND STORAGE

- Handling**
- Precautions for safe handling** : Avoid contact with skin, eyes and clothing. For personal protection see section 8. Use only as directed. KEEP OUT OF REACH OF CHILDREN AND PETS.
- Advice on protection against fire and explosion** : Keep away from sources of ignition - No smoking.
- Storage**
- Requirements for storage areas and containers** : Keep container closed when not in use. Store in a well-ventilated place. Keep cool.

**Safety Data Sheet**

according to Hazard Communication Standard; 29 CFR 1910.1200



## PLEDGE® EVERYDAY CLEANER MULTI SURFACE - CLEAN CITRUS SCENT

Version 1.0

Print Date 11/01/2015

Revision Date 10/08/2015

SDS Number 350000021022  
GEN SOF Number 45845

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Occupational Exposure Limits

Components	CAS-No.	mg/m <sup>3</sup>	ppm	Non-standard units	Basis
Ethyl alcohol	64-17-5	1,900 mg/m <sup>3</sup>	1,000 ppm	-	OSHA TWA
Ethyl alcohol	64-17-5	-	1,000 ppm	-	ACGIH STEL

#### Personal protective equipment

**Respiratory protection** : No special requirements.

**Hand protection** : No special requirements.

**Eye protection** : Safety glasses with side-shields

**Skin and body protection** : No special requirements.

**Hygiene measures** : Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form** : liquid

**Color** : clear

**Odor** : pleasant

**Odour Threshold** : No data available

**pH** : 6.0

**Safety Data Sheet**

according to Hazard Communication Standard; 29 CFR 1910.1200



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at (20 C)

- Melting point/freezing point** : No data available
- Initial boiling point and boiling range** : No data available
- Flash point** : 64 C  
147.2 F  
Method: Tag Closed Cup (TCC)
- Evaporation rate** : No data available
- Flammability (solid, gas)** : Does not sustain combustion.
- Upper/lower flammability or explosive limits** : No data available
- Vapour pressure** : No data available
- Vapour density** : No data available
- Relative density** : 0.99 g/cm<sup>3</sup> at 20 C
- Solubility(ies)** : completely soluble
- Partition coefficient: n-octanol/water** : No data available
- Auto-ignition temperature** : No data available



**Safety Data Sheet**

according to Hazard Communication Standard; 29 CFR 1910.1200



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<b>Decomposition temperature</b>	:	No data available	
<b>Viscosity, dynamic</b>	:	No data available	
<b>Viscosity, kinematic</b>	:	No data available	
<b>Oxidizing properties</b>	:	No data available	
<b>Volatile Organic Compounds Total VOC (wt. %)*</b>	:	0.5 % - additional exemptions may apply as defined by US Federal and State Consumer Product Regulations	
<b>Other information</b>	:	None identified	:

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### 10. STABILITY AND REACTIVITY

<b>Possibility of hazardous reactions</b>	:	If accidental mixing occurs and toxic gas is formed, exit area immediately. Do not return until well ventilated.
<b>Conditions to avoid</b>	:	Heat, flames and sparks.
<b>Incompatible materials</b>	:	Strong oxidizing agents Do not mix with bleach or any other household cleaners. Strong bases
<b>Hazardous decomposition products</b>	:	Thermal decomposition can lead to release of irritating gases and vapours.

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### 11. TOXICOLOGICAL INFORMATION

<b>Emergency Overview</b>	:	Warning
<b>Acute oral toxicity</b>	:	LD50 estimated 5,000 mg/kg
<b>Acute inhalation toxicity</b>	:	LC50 Measured 2.58 mg/l
<b>Acute dermal toxicity</b>	:	LD50 Measured 5,050 mg/kg

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	-
Skin corrosion/irritation	No classification proposed	-
Serious eye damage/eye irritation	No classification proposed	-
Skin sensitisation	No classification proposed	-
Respiratory sensitisation	No classification proposed	-
Germ cell mutagenicity	No classification proposed	-
Carcinogenicity	No classification proposed	-
Reproductive toxicity	No classification proposed	-
Specific target organ toxicity - single exposure	No classification proposed	-
Specific target organ	No classification proposed	-

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toxicity - repeated exposure		
Aspiration hazard	No classification proposed	-

**Aggravated Medical Condition** : None known.

### 12. ECOLOGICAL INFORMATION

**Product** : The product itself has not been tested.

#### Toxicity

The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

#### Toxicity to fish

Components	End point	Species	Value	Exposure time
Ethyl alcohol	flow-through test LC50	Pimephales promelas (fathead minnow)	14,200 mg/l	96 h

#### Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure time
Ethyl alcohol	static test EC50	Daphnia magna (Water flea)	2 mg/l	48 h
	NOEC	Daphnia magna	9.6 mg/l	9 d

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**Toxicity to aquatic plants**

Components	End point	Species	Value	Exposure time
Ethyl alcohol	Static EC50	Chlorella vulgaris (Fresh water algae)	275 mg/l	72 h

**Persistence and degradability**

Component	Biodegradation	Exposure time	Summary
Ethyl alcohol	97 %	28 d	Readily biodegradable

**Bioaccumulative potential**

Component	Bioconcentration factor (BCF)	Partition Coefficient n-Octanol/water (log)
Ethyl alcohol	3.2 estimated	-0.35 Measured

**Mobility**

Component	End point	Value
Ethyl alcohol	No data available	

**PBT and vPvB assessment**

Component	Results
Ethyl alcohol	Not fulfilling PBT and vPvB criteria

**Other adverse effects** : None known.

**13. DISPOSAL CONSIDERATIONS**

Consumer may discard empty container in trash, or recycle

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where facilities exist.

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### 14. TRANSPORT INFORMATION

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

**Land transport**

Not classified as dangerous in the meaning of transport regulations.

**Sea transport**

Not classified as dangerous in the meaning of transport regulations.

**Air transport**

Not classified as dangerous in the meaning of transport regulations.

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### 15. REGULATORY INFORMATION

**Notification status** : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**Notification status** : All ingredients of this product comply with the New Substances Notification requirements under the Canadian Environmental Protection Act (CEPA).

**California Prop. 65** : This product is not subject to the reporting requirements under California's Proposition 65.

**Safety Data Sheet**

according to Hazard Communication Standard; 29 CFR 1910.1200



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SDS Number 350000021022  
GEN SOF Number 45845**16. OTHER INFORMATION****HMIS Ratings**

<b>Health</b>	0
<b>Flammability</b>	2
<b>Reactivity</b>	0

**NFPA Ratings**

<b>Health</b>	0
<b>Fire</b>	2
<b>Reactivity</b>	0
<b>Special</b>	-

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled consumer use.

**Further information**

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by	SC Johnson Global Safety Assessment Regulatory Affairs (GSARA)
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## 1. Identification

**Product identifier** Hercules 300 Degree Grease  
**Other means of identification**  
**Product code** 7381E  
**Synonyms** Part Numbers: 40601  
**Recommended use** General purpose plumber s grease  
**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

**Company Name**  
**Address**

**Telephone**  
**E-mail**  
**Transport Emergency**  
**Emergency First Aid**  
**Contact person**

## 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards** Not classified.  
**OSHA defined hazards** Not classified.

### Label elements

**Hazard symbol** None.  
**Signal word** None.  
**Hazard statement** The mixture does not meet the criteria for classification.

### Precautionary statement

**Prevention** Observe good industrial hygiene practices.  
**Response** Wash hands after handling.  
**Storage** Store away from incompatible materials.  
**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
Petroleum-based Lubricating Oil	64741-88-4	80-95
Fumed Silica	112945-52-5	1-10

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

**Inhalation** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	In case of spills, beware of slippery floors and surfaces. Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid prolonged exposure. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Fumed Silica (CAS 112945-52-5)	TWA	0.8 mg/m <sup>3</sup>
		20 mppcf

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Petroleum-based Lubricating Oil (CAS 64741-88-4)	TWA	5 mg/m <sup>3</sup>	Inhalable fraction.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Fumed Silica (CAS 112945-52-5)	TWA	6 mg/m <sup>3</sup>	



Components	Type	Value	Form
Petroleum-based Lubricating Oil (CAS 64741-88-4)	Ceiling	1800 mg/m <sup>3</sup>	
	STEL	10 mg/m <sup>3</sup>	Mist.
	TWA	5 mg/m <sup>3</sup>	Mist.
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).		
<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.		
<b>Individual protection measures, such as personal protective equipment</b>			
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).		
<b>Skin protection</b>			
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.		
<b>Other</b>	Wear suitable protective clothing.		
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.		
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.		
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.		

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Gel.
<b>Color</b>	Amber.

**Odor** Slight odor.

**Odor threshold** Not available.

**pH** Not applicable

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not determined

**Flash point** 212.0 F ( 100.0 C)

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not available.

**Vapor density** Not available.

**Relative density** 0.9 g/cm<sup>3</sup>

### Solubility(ies)

**Solubility (water)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** 50000 cP

**Other information**  
**VOC (Weight %)** 6 g/l

## 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.  
**Chemical stability** Material is stable under normal conditions.  
**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.  
**Conditions to avoid** Contact with incompatible materials.  
**Incompatible materials** Fluorine. Chlorine.  
**Hazardous decomposition products** No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

**Inhalation** Prolonged inhalation may be harmful.  
**Skin contact** No adverse effects due to skin contact are expected.  
**Eye contact** Direct contact with eyes may cause temporary irritation.  
**Ingestion** Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

**Acute toxicity** Not available.  
**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.  
**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.  
**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Fumed Silica (CAS 112945-52-5) 3 Not classifiable as to carcinogenicity to humans.  
 Petroleum-based Lubricating Oil (CAS 64741-88-4) 3 Not classifiable as to carcinogenicity to humans.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful.

**Further information** This product has no known adverse effect on human health.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. 435

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

Not regulated as dangerous goods.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

### 15. Regulatory information

**US federal regulations** This product is not known to be a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

#### **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

#### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

#### **Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### **SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

#### **SARA 313 (TRI reporting)**

Not regulated.

#### **Other federal regulations**

##### **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

##### **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

#### **US state regulations**

##### **US. Massachusetts RTK - Substance List**

Fumed Silica (CAS 112945-52-5)  
Petroleum-based Lubricating Oil (CAS 64741-88-4)

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Fumed Silica (CAS 112945-52-5)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	22-April-2015
<b>Revision date</b>	-
<b>Version #</b>	01
<b>HMIS® ratings</b>	Health: 0 Flammability: 0 Physical hazard: 0

**NFPA ratings****Disclaimer**

HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



## Safety Data Sheet

**SDS ID: Stock Code MT**

**Revision date:** April 27, 2017

### Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product name:** "Make-Tyte" Super Soft Stainless Plumber's Putty

**Synonyms:** None

**Chemical family:** N/A

**Producer:** J.C. Whitlam Manufacturing Company  
200 West Walnut Street  
P.O. Box 380  
Wadsworth, Ohio 44282-0380  
[www.icwhitlam.com](http://www.icwhitlam.com)

**Telephone:** 330-334-2524 Available during normal business hours

**Emergency:** 330-334-2524 Available during normal business hours

### Section 2. HAZARDS IDENTIFICATION

**Precautionary Statements:** Observe good industrial hygiene practices.  
Wash hands after handling.  
Store away from incompatible materials.  
Dispose of waste and residues in accordance with local authority requirements.

**Hazardous Statement:** None

**Inhalation:** Prolonged inhalation may be harmful.

**Ingestion:** Expected to be a low ingestion hazard.

**Skin Contact:** No adverse effects due to skin contact are expected.

**Eye Contact:** Direct contact with eyes may cause temporary irritation.

### Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Material information:**

Name	CAS No.	Weight %
Limestone	1317-65-3	60-90
Fats and Glyceridic Oil	68991-31-1	5 - 30
Crystalline Silica (Quartz)	14808-60-7	< 1

**\*Note:** The above weight percentages are represented in ranges as estimates. Due to variation among production batches, component percentages may vary.

## Section 4. FIRST AID MEASURES

- Inhalation:** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
- Skin contact:** Rinse with water/shower. Get medical attention if irritation develops and persists.
- Ingestion:** Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
- Eye contact:** Rinse with water. Get medical attention if irritation develops and persists.

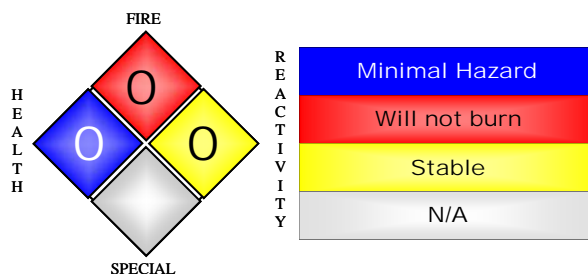
## Section 5. FIREFIGHTING MEASURES

**Suitable extinguishing media:** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>). Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards:** During fire, gases hazardous to health may be formed.

**Special protective equipment/instructions for firefighters:** Full protective equipment including self-contained breathing apparatus should be used. Use water spray to cool unopened containers. Use standard firefighting procedures and consider the hazards of other involved materials.

	NFPA rating:	HMS rating:
<b>Health:</b>	0	0
<b>Flammability:</b>	0	0
<b>Instability/reactivity:</b>	0	0
<b>Other:</b>	N/A	N/A (PPE)



## Section 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Keep unnecessary personnel away. For personal protection see Section 8.
<b>Large Spill:</b>	No data available.
<b>Methods for Containment and Clean up</b>	Stop the flow of material, if this is without risk. Following product recovery, flush area with water. Avoid discharge into drains, water courses or onto the ground.

## Section 7. HANDLING AND STORAGE

<b>Handling:</b>	Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe the dust.
<b>Storage:</b>	Keep containers closed after use. Store away from incompatible materials.

## Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Occupational Exposure Limits:

Name	CAS No.	ACGIH® TLV® Exposure Limits:	Federal OSHA PELs	OSHA PELs 1989 <sup>c</sup>
Limestone	1317-65-3	N/A	N/A	N/A
Crystalline Silica	14808-60-7	N/A	N/A	N/A

All exposure limits listed are 8-hour time weighted average (TWA) — except where noted otherwise.

<sup>A</sup> Time Weighted Average (TWA) is an average exposure over the course of an 8-hour work shift.

<sup>B</sup> A Short Term Exposure Limit TWA over the course of 15 minutes.

PEL — Permissible Exposure Limit is the maximum 8-hour TWA concentration of a chemical that a worker may be exposed to under Occupational Safety and Health Administration (OSHA) regulations.

<sup>C</sup> Federal OSHA 1989 PELs were vacated but are in use and enforced by many state OSHA plans.

**Engineering measures:** Good ventilation.

### PERSONAL PROTECTIVE EQUIPMENT

**Respiratory protection:** Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

**Skin and body protection:** Wear protective gloves and synthetic apron or standard work clothes.

**Eye protection:** Wear safety spectacles with side shields, face shield or goggles.

**Hygiene measures:** Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove contaminated clothing and launder before reuse.

**Other precautions:** N/A

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Cream
<b>Physical state (solid/liquid/gas):</b>	Putty
<b>Substance type (pure/mixture):</b>	Mixture
<b>Color:</b>	Cream
<b>Odor:</b>	Slight
<b>Molecular weight:</b>	Not Available
<b>pH:</b>	Not Applicable
<b>Boiling point/range (5-95%):</b>	Not Available
<b>Melting point/range:</b>	Not Available
<b>Decomposition temperature:</b>	Not Available
<b>Specific gravity:</b>	Not Available
<b>Vapor density:</b>	>1 (AIR = 1)
<b>Vapor pressure:</b>	Not available
<b>Evaporation rate (Butyl acetate= 1):</b>	<1
<b>Flash point, method used:</b>	>212°F (> 100.0°C)
<b>Water solubility:</b>	Insoluble
<b>VOC Content:</b>	20 grams/liter
<b>Auto-ignition temperature:</b>	Not Available
<b>Flammable limits in air — lower (%):</b>	2.0
<b>Flammable limits in air — upper (%):</b>	Not Available

## Section 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Stability:</b>	Stable under recommended storage conditions.
<b>Possibly hazardous reactions:</b>	No data available
<b>Conditions to avoid:</b>	Contact with incompatible materials.
<b>Incompatible Materials:</b>	Acids. Flourine.
<b>Hazardous decomposition products:</b>	None known.
<b>Polymerization:</b>	Will not occur.

## Section 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:** Not available

### Product information:

Name	CAS No.	Inhalation:	Dermal:	Oral:
Limestone	1317-65-3	N/A	N/A	N/A
Crystalline Silica	14808-60-7	N/A	N/A	NA

**Chronic toxicity:** Not available.

**Carcinogenicity:** In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibers, 1997, Vol. 68, IARC, Lyon, France.) Risk of cancer cannot be excluded with prolonged exposure.

## Section 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity effects:</b>	None
<b>Persistence</b>	None
<b>Degradability:</b>	Not available.

## Section 13. DISPOSAL CONSIDERATIONS

**Cleanup considerations:** Disposal of this material must be done in accordance with federal, state and/or local regulations.

## Section 14. TRANSPORT INFORMATION

Not regulated as a dangerous good by DOT, IATA and IMDG.



## Section 15. REGULATORY INFORMATION

### US Federal Regulations:

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard – No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Chemical

No

SARA 313 (TRI reporting)

Not regulated.

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

### US State Regulations:

US. Massachusetts RTK - Substance List

Crystalline silica (Quartz) (CAS 14808-60-7)

Limestone (CAS 1317-65-3)

US. New Jersey Worker and Community Right-to-Know Act

Crystalline silica (Quartz) (CAS 14808-60-7)

Limestone (CAS 1317-65-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Crystalline silica (Quartz) (CAS 14808-60-7)

Limestone (CAS 1317-65-3)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Crystalline silica (Quartz) (CAS 14808-60-7)

**Section 16. OTHER INFORMATION**

The information and recommendations contained herein are based upon tests, data, and information resources believed to be reliable. However, the J.C. Whitlam Manufacturing Company, Inc., and its related operations or divisions (Whitlam) do not guarantee the accuracy or completeness, nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of goods, the merchantability of the goods or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage may be required. Whitlam assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of this data. No warranty against infringement of any patent, copyright or trademark is made or implied.

# SAFETY DATA SHEET

## Propane

### Section 1. Identification

<b>GHS product identifier</b>	: Propane
<b>Chemical name</b>	: propane
<b>Other means of identification</b>	: Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.
<b>Product use</b>	: Synthetic/Analytical chemistry.
<b>Synonym</b>	: Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.
<b>SDS #</b>	: 001045
<b>Supplier's details</b>	: Airgas USA, LLC and its affiliates 259 North Radnor-Chester Road Suite 100 Radnor, PA 19087-5283 1-610-687-5253
<b>24-hour telephone</b>	: 1-866-734-3438

### Section 2. Hazards identification

<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Classification of the substance or mixture</b>	: FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Liquefied gas

#### GHS label elements

##### **Hazard pictograms**



##### **Signal word**

: Danger

##### **Hazard statements**

: Extremely flammable gas.  
Contains gas under pressure; may explode if heated.  
May cause frostbite.  
May form explosive mixtures in Air.  
May displace oxygen and cause rapid suffocation.

#### Precautionary statements

##### **General**

: Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position. Approach suspected leak area with caution.

##### **Prevention**

: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

##### **Response**

: Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

##### **Storage**

: Protect from sunlight when ambient temperature exceeds 52°C/125°F. Store in a well-ventilated place.

## Section 2. Hazards identification

- Disposal** : Not applicable.
- Hazards not otherwise classified** : In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Substance
- Chemical name** : propane
- Other means of identification** : Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.

### CAS number/other identifiers

**CAS number** : 74-98-6

**Product code** : 001045

Ingredient name	%	CAS number
Propane	100	74-98-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : As this product is a gas, refer to the inhalation section.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Frostbite** : Try to warm up the frozen tissues and seek medical attention.
- Ingestion** : As this product is a gas, refer to the inhalation section.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.

## Section 4. First aid measures

**Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

## Section 6. Accidental release measures

- Large spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Keep container tightly closed and sealed until ready for use. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Propane	<p><b>NIOSH REL (United States, 10/2013).</b> TWA: 1800 mg/m<sup>3</sup> 10 hours. TWA: 1000 ppm 10 hours.</p> <p><b>OSHA PEL (United States, 2/2013).</b> TWA: 1800 mg/m<sup>3</sup> 8 hours. TWA: 1000 ppm 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 1800 mg/m<sup>3</sup> 8 hours. TWA: 1000 ppm 8 hours.</p>

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

## Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Gas. [Liquefied compressed gas.]
- Color** : Colorless.
- Molecular weight** : 44.11 g/mole
- Molecular formula** : C<sub>3</sub>H<sub>8</sub>
- Boiling/condensation point** : -161.48°C (-258.7°F)
- Melting/freezing point** : -187.6°C (-305.7°F)
- Critical temperature** : 96.55°C (205.8°F)
- Odor** : Odorless.BUT MAY HAVE SKUNK ODOR ADDED.
- Odor threshold** : Not available.
- pH** : Not available.
- Flash point** : Closed cup: -104°C (-155.2°F)  
Open cup: -104°C (-155.2°F)
- Burning time** : Not applicable.
- Burning rate** : Not applicable.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and oxidizing materials.
- Lower and upper explosive (flammable) limits** : Lower: 1.8%  
Upper: 8.4%
- Vapor pressure** : 109 (psig)
- Vapor density** : 1.6 (Air = 1)

## Section 9. Physical and chemical properties

<b>Specific Volume (ft<sup>3</sup>/lb)</b>	: 8.6206
<b>Gas Density (lb/ft<sup>3</sup>)</b>	: 0.116 (25°C / 77 to °F)
<b>Relative density</b>	: Not applicable.
<b>Solubility</b>	: Not available.
<b>Solubility in water</b>	: 0.0244 g/l
<b>Partition coefficient: n-octanol/water</b>	: 1.09
<b>Auto-ignition temperature</b>	: 287°C (548.6°F)
<b>Decomposition temperature</b>	: Not available.
<b>SADT</b>	: Not available.
<b>Viscosity</b>	: Not applicable.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
<b>Incompatible materials</b>	: Oxidizers
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Hazardous polymerization</b>	: Under normal conditions of storage and use, hazardous polymerization will not occur.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Not available.

**IDLH** : 2100 ppm

#### Irritation/Corrosion

Not available.

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.



## Section 11. Toxicological information

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : As this product is a gas, refer to the inhalation section.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Propane	1.09	-	low

### Mobility in soil






**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

## Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
<b>UN number</b>	UN1978	UN1978	UN1978	UN1978	UN1978
<b>UN proper shipping name</b>	PROPANE	PROPANE	PROPANE	PROPANE	PROPANE
<b>Transport hazard class(es)</b>	2.1 	2.1 	2.1 	2.1 	2.1 
<b>Packing group</b>	-	-	-	-	-
<b>Environment</b>	No.	No.	No.	No.	No.
<b>Additional information</b>	<p><b>Limited quantity</b> Yes.</p> <p><b>Packaging instruction</b> <b>Passenger aircraft</b> Quantity limitation: Forbidden.</p> <p><b>Cargo aircraft</b> Quantity limitation: 150 kg</p> <p><b>Special provisions</b> 19, T50</p>	<p>Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).</p> <p><b>Explosive Limit and Limited Quantity Index</b> 0.125</p> <p><b>ERAP Index</b> 3000</p>	-	-	<p><b>Passenger and Cargo Aircraft</b> Quantity limitation: 0 Forbidden <b>Cargo Aircraft Only</b> Quantity limitation: 150 kg</p>

## Section 14. Transport information

	<p>For domestic transportation only, UN1075 may be substituted for the UN number shown as long as the substitution is consistent on package markings, shipping papers, and emergency response information. See 49 CFR 172.102 Special Provision 19. Containers of NON-ODORIZED liquefied petroleum gas must be marked either NON-ODORIZED or NOT ODORIZED as of September 30, 2006. [49 CFR 172.301(f), 326(d), 330(c) and 338 (e)]</p>	<p><b><u>Passenger Carrying Ship Index</u></b> 65</p> <p><b><u>Passenger Carrying Road or Rail Index</u></b> Forbidden</p> <p><b><u>Special provisions</u></b> 29, 42</p>			
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“Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product.”

**Special precautions for user** : **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** This material is listed or exempted.  
**Clean Air Act (CAA) 112 regulated flammable substances:** propane

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

### State regulations

## Section 15. Regulatory information

- Massachusetts** : This material is listed.  
**New York** : This material is not listed.  
**New Jersey** : This material is listed.  
**Pennsylvania** : This material is listed.

### International regulations

#### International lists

#### National inventory

- Australia** : This material is listed or exempted.  
**Canada** : This material is listed or exempted.  
**China** : This material is listed or exempted.  
**Europe** : This material is listed or exempted.  
**Japan** : This material is listed or exempted.  
**Malaysia** : This material is listed or exempted.  
**New Zealand** : This material is listed or exempted.  
**Philippines** : This material is listed or exempted.  
**Republic of Korea** : This material is listed or exempted.  
**Taiwan** : This material is listed or exempted.

### Canada

- WHMIS (Canada)** : Class A: Compressed gas.  
 Class B-1: Flammable gas.  
**CEPA Toxic substances**: This material is not listed.  
**Canadian ARET**: This material is not listed.  
**Canadian NPRI**: This material is listed.  
**Alberta Designated Substances**: This material is not listed.  
**Ontario Designated Substances**: This material is not listed.  
**Quebec Designated Substances**: This material is not listed.

## Section 16. Other information

- Canada Label requirements** : Class A: Compressed gas.  
 Class B-1: Flammable gas.

### Hazardous Material Information System (U.S.A.)

Health	*	1
Flammability		4
Physical hazards		2

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)



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## Section 16. Other information

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### Procedure used to derive the classification

Classification	Justification
Flam. Gas 1, H220 Press. Gas Liq. Gas, H280	Expert judgment Expert judgment

### History

**Date of printing** : 6/28/2017  
**Date of issue/Date of revision** : 6/28/2017  
**Date of previous issue** : 10/20/2015  
**Version** : 0.02

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

**References** : Not available.

▣ Indicates information that has changed from previously issued version.

**Other special considerations** : The information below is given to call attention to the issue of "Naturally occurring radioactive materials". Although Radon-222 levels in the product represented by this MSDS do not present any direct Radon exposure hazard, customers should be aware of the potential for Radon daughter build up within their processing systems, whatever the source of their product streams. Radon-222 is a naturally occurring radioactive gas which can be a contaminant in natural gas. During subsequent processing, Radon tends to be concentrated in Liquefied Petroleum Gas streams and in product streams having a similar boiling point range. Industry experience has shown that this product may contain small amounts of Radon-222 and its radioactive decay products, called Radon "daughters". The actual concentration of Radon-222 and radioactive daughters in the delivered product is dependent on the geographical source of the natural gas and storage time prior to delivery. Process equipment (i.e. lines, filters, pumps and reaction units) may accumulate significant levels of radioactive daughters and show a gamma radiation reading during operation. A potential external radiation hazard exists at or near any pipe valve or vessel containing a Radon enriched stream, or containing internal deposits of radioactive material due to the transmission of gamma radiation through its wall. Field studies reported in the literature have not shown any conditions that subject workers to cumulative exposures in excess of general population limits. Equipment emitting gamma radiation should be presumed to be internally contaminated with alpha emitting decay products which may be a hazard if inhaled or ingested. Protective equipment such as coveralls, gloves, and respirator (NIOSH/MHSA approved for high efficiency particulates and radionuclides, or supplied air) should be worn by personnel entering a vessel or working on contaminated process equipment to prevent skin contamination, ingestion, or inhalation of any residues containing alpha radiation. Airborne contamination may be minimized by handling scale and/or contaminated materials in a wet state.

### Notice to reader

## Section 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**1. Identification**

**Product identifier** Oatey Purple Primer- NSF Listed for PVC and CPVC

**Other means of identification**

**Product code** 1402E

**Synonyms** Part Numbers: 30755(TV), 30756(TV), 30757(TV), 30758, 30759, 30927  
Joining PVC Pipes

**Recommended use**

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Company Name**  
**Address**

**Telephone**  
**E-mail**  
**Transport Emergency**  
**Emergency First Aid**  
**Contact person**

**2. Hazard(s) identification**

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
<b>OSHA defined hazards</b>	Not classified.	

**Label elements****Signal word**

Danger

**Hazard statement**

Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

**Precautionary statement****Prevention**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.
<b>Supplemental information</b>	Not applicable.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Acetone	67-64-1	25-40
Cyclohexanone	108-94-1	25-40
Furan, Tetrahydro-	109-99-9	15-30
Methyl ethyl ketone	78-93-3	15-30

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.



## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

### Environmental precautions

## 7. Handling and storage

### Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3 50 ppm
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3 200 ppm
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3 200 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm
	TWA	20 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm

Components	Type	Value
Methyl ethyl ketone (CAS 78-93-3)	TWA	50 ppm
	STEL	300 ppm
	TWA	200 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m3
		25 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m3
		250 ppm
Methyl ethyl ketone (CAS 78-93-3)	TWA	590 mg/m3
		200 ppm
	STEL	885 mg/m3
	TWA	300 ppm
		590 mg/m3
		200 ppm

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	
		Cyclohexanol, with hydrolysis	Urine	
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	

- For sampling details, please see the source document.

**Exposure guidelines****US - California OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Cyclohexanone (CAS 108-94-1)

Skin designation applies.

**US - Tennessee OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

Furan, Tetrahydro- (CAS 109-99-9)

Can be absorbed through the skin.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Face shield is recommended. Wear safety glasses with side shields (or goggles).

<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Translucent liquid.
<b>Color</b>	Purple
<b>Odor</b>	Solvent.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	151 F (66.11 C)
<b>Flash point</b>	14.0 - 23.0 F (-10.0 - -5.0 C)
<b>Evaporation rate</b>	5.5 - 8
<b>Flammability (solid, gas)</b>	Not available.

### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	1.8
<b>Flammability limit - upper (%)</b>	11.8
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	145 mm Hg @ 20 C
<b>Vapor density</b>	2.5
<b>Relative density</b>	0.84 +/- 0.02 @20 C
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Negligible
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Bulk density</b>	7 lb/gal
<b>VOC (Weight %)</b>	505 g/l SQACMD Method 24

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.

**11. Toxicological information**

**Information on likely routes of exposure**

- Inhalation** May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
- Skin contact** Causes skin irritation.
- Eye contact** Causes serious eye irritation.
- Ingestion** May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics**

Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Information on toxicological effects**

**Acute toxicity** May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg
<i>Inhalation</i>		
LC50	Rat	50 mg/l, 8 Hours
<i>Oral</i>		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	948 mg/kg
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	1540 mg/kg

Estimates for product may be based on additional component data not shown.

- Skin corrosion/irritation** Causes skin irritation.
- Serious eye damage/eye irritation** Causes serious eye irritation.
- Respiratory or skin sensitization**

  - Respiratory sensitization** Not available.
  - Skin sensitization** This product is not expected to cause skin sensitization.

- Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
- Carcinogenicity** In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is suggestive evidence of carcinogenic potential following exposure to THF by all routes of exposure.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Cyclohexanone (CAS 108-94-1) 3 Not classifiable as to carcinogenicity to humans.

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Chronic effects** Prolonged inhalation may be harmful.

**12. Ecological information**

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 481 - 578 mg/l, 96 hours

Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Partition coefficient n-octanol / water (log Kow)**

Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Furan, Tetrahydro- (CAS 109-99-9)	0.46
Methyl ethyl ketone (CAS 78-93-3)	0.29

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**14. Transport information**

**DOT**

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquids, n.o.s. (Methyl ethyl ketone RQ = 26274 LBS, Acetone RQ = 13130 LBS)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II

<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	IB2, T7, TP1, TP8, TP28
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**IATA**

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquid, n.o.s. (Methyl ethyl ketone, Acetone)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	3H
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	FLAMMABLE LIQUID, N.O.S. (Methyl ethyl ketone, Acetone)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-E, S-E
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

**15. Regulatory information**

**US federal regulations** This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<b>Hazard categories</b>	Immediate Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**  
Not regulated.

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Acetone (CAS 67-64-1) 6532

Methyl ethyl ketone (CAS 78-93-3) 6714

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Acetone (CAS 67-64-1) 35 %WV

Methyl ethyl ketone (CAS 78-93-3) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

Acetone (CAS 67-64-1) 6532

Methyl ethyl ketone (CAS 78-93-3) 6714

**US state regulations****US. Massachusetts RTK - Substance List**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

**US. New Jersey Worker and Community Right-to-Know Act**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

**US. Rhode Island RTK**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Furan, Tetrahydro- (CAS 109-99-9)

Methyl ethyl ketone (CAS 78-93-3)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

Issue date	27-May-2015
Revision date	-
Version #	01
HMIS® ratings	Health: 2 Flammability: 3 Physical hazard: 0

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.



## 1. Identification

**Product identifier** **PVC All Weather Clear Cement**

**Other means of identification**

**Product code** 1105E

**Synonyms** Part Numbers: 31132, 31133, 31135, 31136

**Recommended use** Joining PVC Pipes

**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

**Company Name**

**Address**

**Telephone**

**E-mail**

**Transport Emergency**

**Emergency First Aid**

**Contact person**

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



**Signal word** Danger

**Hazard statement** Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

### Precautionary statement

**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.

**Supplemental information**

Not applicable.

**3. Composition/information on ingredients****Mixtures**

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	35-55
Acetone	67-64-1	10-25
Polyvinyl chloride	9002-86-2	12-20
Cyclohexanone	108-94-1	10-20
Silica, amorphous, fumed	112945-52-5	1-5

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**4. First-aid measures**

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

**5. Fire-fighting measures**

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

### Environmental precautions

## 7. Handling and storage

### Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Polyvinyl chloride (CAS 9002-86-2)	STEL	5 ppm
	TWA	1 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m3	
		1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3	
		50 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3	
		200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	0.8 mg/m <sup>3</sup>  20 mppcf

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
	TWA	20 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	
Polyvinyl chloride (CAS 9002-86-2)	TWA	1 mg/m <sup>3</sup>	Respirable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m <sup>3</sup> 250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m <sup>3</sup> 25 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m <sup>3</sup> 250 ppm
	TWA	590 mg/m <sup>3</sup> 200 ppm
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m <sup>3</sup>

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	

- For sampling details, please see the source document.

**Exposure guidelines****US - California OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Cyclohexanone (CAS 108-94-1)

Skin designation applies.

**US - Tennessee OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

Furan, Tetrahydro- (CAS 109-99-9)

Can be absorbed through the skin.

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**Appropriate engineering controls** Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Face shield is recommended. Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves.

**Other** Wear appropriate chemical resistant clothing.

**Respiratory protection** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance**

**Physical state** Liquid.

**Form** Translucent liquid.

**Color** Gray.

**Odor** Solvent.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 151 F (66.11 C)

**Flash point** -4.0 F (-20.0 C)

**Evaporation rate** 5.5 - 8

**Flammability (solid, gas)** Not available.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 1.8

**Flammability limit - upper (%)** 11.8

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** 145 mm Hg @ 20 C

**Vapor density** 2.5

**Relative density** 0.95 +/- 0.02

**Solubility(ies)**

**Solubility (water)** Negligible

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** 600 - 1500 cP

**Other information**

**VOC (Weight %)** 423 g/l SCAQMD 1168/M316A

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics** Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

### Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg
<i>Inhalation</i>		
LC50	Rat	50 mg/l, 8 Hours
<i>Oral</i>		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	948 mg/kg
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	1540 mg/kg

Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

## Carcinogenicity

In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is suggestive evidence of carcinogenic potential following exposure to THF by all routes of exposure. 471

### IARC Monographs. Overall Evaluation of Carcinogenicity

Cyclohexanone (CAS 108-94-1)	3 Not classifiable as to carcinogenicity to humans.
Polyvinyl chloride (CAS 9002-86-2)	3 Not classifiable as to carcinogenicity to humans.
Silica, amorphous, fumed (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer
------------------------------------	--------

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 481 - 578 mg/l, 96 hours

Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

### Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Furan, Tetrahydro- (CAS 109-99-9)	0.46

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

UN number	UN1993
UN proper shipping name	Flammable liquids, n.o.s. (Acetone RQ = 25934 LBS)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP1, TP8, TP28
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242

### IATA

UN number	UN1993
UN proper shipping name	Flammable liquid, n.o.s. (Acetone)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3H
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

### IMDG

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Acetone)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

## 15. Regulatory information

**US federal regulations** This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer
	Central nervous system
	Liver
	Blood
	Flammability

### CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED



**Hazard categories**  
 Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - Yes  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**  
 Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Acetone (CAS 67-64-1) 6532

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Acetone (CAS 67-64-1) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

Acetone (CAS 67-64-1) 6532

**US state regulations****US. Massachusetts RTK - Substance List**

Acetone (CAS 67-64-1)  
 Cyclohexanone (CAS 108-94-1)  
 Furan, Tetrahydro- (CAS 109-99-9)  
 Silica, amorphous, fumed (CAS 112945-52-5)

**US. New Jersey Worker and Community Right-to-Know Act**

Acetone (CAS 67-64-1)  
 Cyclohexanone (CAS 108-94-1)  
 Furan, Tetrahydro- (CAS 109-99-9)  
 Polyvinyl chloride (CAS 9002-86-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Acetone (CAS 67-64-1)  
 Cyclohexanone (CAS 108-94-1)  
 Furan, Tetrahydro- (CAS 109-99-9)  
 Silica, amorphous, fumed (CAS 112945-52-5)

**US. Rhode Island RTK**

Acetone (CAS 67-64-1)  
 Cyclohexanone (CAS 108-94-1)  
 Furan, Tetrahydro- (CAS 109-99-9)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 27-May-2015  
**Revision date** -  
**Version #** 01  
**HMIS® ratings** Health: 2  
Flammability: 3  
Physical hazard: 0

**NFPA ratings****Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.



<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.
<b>Supplemental information</b>	Not applicable.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	25-40
Methyl ethyl ketone	78-93-3	25-40
Acetone	67-64-1	10-25
Cyclohexanone	108-94-1	10-25
Polyvinyl chloride	9002-86-2	10-25

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

**Large Spills:** Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

**Small Spills:** Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

### Environmental precautions

## 7. Handling and storage

### Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Polyvinyl chloride (CAS 9002-86-2)	STEL	5 ppm
	TWA	1 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m3	
		1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3	
		50 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3	
		200 ppm	
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3	
		200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
	TWA	20 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	TWA	1 mg/m <sup>3</sup>	Respirable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m <sup>3</sup> 250 ppm
	TWA	100 mg/m <sup>3</sup>
Cyclohexanone (CAS 108-94-1)	STEL	25 ppm
	TWA	735 mg/m <sup>3</sup> 250 ppm 590 mg/m <sup>3</sup>
Furan, Tetrahydro- (CAS 109-99-9)	STEL	200 ppm
	TWA	885 mg/m <sup>3</sup> 300 ppm 590 mg/m <sup>3</sup> 200 ppm

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	
		Cyclohexanol, with hydrolysis	Urine	
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	

- For sampling details, please see the source document.

**Exposure guidelines****US - California OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Cyclohexanone (CAS 108-94-1)

Skin designation applies.

**US - Tennessee OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

Furan, Tetrahydro- (CAS 109-99-9)

Can be absorbed through the skin.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**Appropriate engineering controls** Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. 479

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Face shield is recommended. Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves.

**Other** Wear appropriate chemical resistant clothing.

**Respiratory protection** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties**

**Appearance**

**Physical state** Liquid.

**Form** Translucent liquid.

**Color** Clear.

**Odor** Solvent.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 151 F (66.11 C)

**Flash point** -4.0 F (-20.0 C)

**Evaporation rate** 5.5 - 8

**Flammability (solid, gas)** Not available.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 1.8

**Flammability limit - upper (%)** 11.8

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** 145 mm Hg @ 20 C

**Vapor density** 2.5

**Relative density** 0.91 +/- 0.02

**Solubility(ies)**

**Solubility (water)** Negligible

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** 80 - 500 cP

**Other information**

**Bulk density** 7.6 lb/gal

**VOC (Weight %)** <510 g/l SCAQMD 1168/M316A

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics** Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

### Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg
<i>Inhalation</i>		
LC50	Rat	50 mg/l, 8 Hours
<i>Oral</i>		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	948 mg/kg
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	1540 mg/kg

Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.



## Carcinogenicity

In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is suggestive evidence of carcinogenic potential following exposure to THF by all routes of exposure. 481

### IARC Monographs. Overall Evaluation of Carcinogenicity

Cyclohexanone (CAS 108-94-1) 3 Not classifiable as to carcinogenicity to humans.  
Polyvinyl chloride (CAS 9002-86-2) 3 Not classifiable as to carcinogenicity to humans.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2) Cancer

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.  
**Specific target organ toxicity - single exposure** Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.  
**Specific target organ toxicity - repeated exposure** Not classified.  
**Aspiration hazard** May be fatal if swallowed and enters airways.  
**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 481 - 578 mg/l, 96 hours

Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

### Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1) -0.24  
Cyclohexanone (CAS 108-94-1) 0.81  
Furan, Tetrahydro- (CAS 109-99-9) 0.46  
Methyl ethyl ketone (CAS 78-93-3) 0.29

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	T11, TP1, TP8, TP27
Packaging exceptions	150
Packaging non bulk	201
Packaging bulk	243

### IATA

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

### IMDG

UN number	UN1133
UN proper shipping name	ADHESIVES
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

## 15. Regulatory information

**US federal regulations** This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer
	Central nervous system
	Liver
	Blood
	Flammability

### CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

**Hazard categories**  
 Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - Yes  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Acetone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Acetone (CAS 67-64-1)	35 %WV
Methyl ethyl ketone (CAS 78-93-3)	35 %WV

**DEA Exempt Chemical Mixtures Code Number**

Acetone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

**US state regulations****US. Massachusetts RTK - Substance List**

Acetone (CAS 67-64-1)  
 Cyclohexanone (CAS 108-94-1)  
 Furan, Tetrahydro- (CAS 109-99-9)  
 Methyl ethyl ketone (CAS 78-93-3)

**US. New Jersey Worker and Community Right-to-Know Act**

Acetone (CAS 67-64-1)  
 Cyclohexanone (CAS 108-94-1)  
 Furan, Tetrahydro- (CAS 109-99-9)  
 Methyl ethyl ketone (CAS 78-93-3)  
 Polyvinyl chloride (CAS 9002-86-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Acetone (CAS 67-64-1)  
 Cyclohexanone (CAS 108-94-1)  
 Furan, Tetrahydro- (CAS 109-99-9)  
 Methyl ethyl ketone (CAS 78-93-3)

**US. Rhode Island RTK**

Acetone (CAS 67-64-1)  
 Cyclohexanone (CAS 108-94-1)  
 Furan, Tetrahydro- (CAS 109-99-9)  
 Methyl ethyl ketone (CAS 78-93-3)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

<b>Issue date</b>	05-27-2015
<b>Revision date</b>	-
<b>Version #</b>	01
<b>HMIS® ratings</b>	Health: 2 Flammability: 3 Physical hazard: 0

### NFPA ratings



### Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.



## SAFETY DATA SHEET

### 1. Identification

<b>Product identifier</b>	<b>Oatey Clear Cleaner</b>
<b>Other means of identification</b>	
<b>Product code</b>	1400E
<b>Synonyms</b>	Part Numbers: 30766, 30779, 30782, 30795, 30805, 32216, 32217, 32218, 32219
<b>Recommended use</b>	Cleaning PVC, CPVC or ABS pipe and fittings
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company Name</b>	Oatey Inc.
<b>Address</b>	4700 West 160th Street Cleveland, OH 44135
<b>Telephone</b>	216-267-7100
<b>E-mail</b>	info@oatey.com
<b>Transport Emergency</b>	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)
<b>Emergency First Aid</b>	1-877-740-5015
<b>Contact person</b>	MSDS Coordinator

### 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1

**OSHA defined hazards** Not Classified

#### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes.

<b>Storage</b>	Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Acetone	67-64-1	75-95
Cyclohexanone	108-94-1	1-5
Methy ethyl ketone	78-93-3	0-5

\*Designates that a specific chemical identity and or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment Needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist
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## Methods and materials for containment and cleaning up

or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

**Large Spills:** Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

**Small Spills:** Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original container for reuse. For waste disposal, see sect. 13 of the SDS.

## Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value	FORM
Acetone (CAS 67-64-1)	PEL	2400 mg/m <sup>3</sup> 1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m <sup>3</sup> 50 ppm	
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m <sup>3</sup> 200 pp,	

#### US. ACGIH Threshold Limit Values

Components	Type	Value	FORM
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value

Acetone (CAS 67-64-1)	TWA	590 mg/m <sup>3</sup> 250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m <sup>3</sup> 25 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m <sup>3</sup> 300 ppm
	TWA	590 mg/m <sup>3</sup> 200 ppm

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	
Cyclohexanone (CAS 108-94-1)	80 mg/l 8 mg/l	1,2-Cyclohexanediol, with hydrolysis Cyclohexanol, with hydrolysis	Urine	
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	

- For sampling details, see the source document.

**Exposure guidelines****US - California OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Cyclohexanone (CAS 108-94-1)

Skin designation applies.

**US - Tennessee OELs: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Face shield is recommended. Wear safety glasses with side shields (or goggles).

**Skin protection****Hand**

Wear appropriate chemical resistant gloves.

**Other**

Wear appropriate chemical resistant clothing.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn..

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance****Physical state**

Liquid

**Form**

Liquid

**Color**

Clear

**Odor**

Solvent

**Odor threshold**

Not available.



pH	Not Applicable
Melting point/freezing point	Not available.
Initial boiling point and boiling range	151 F (66.11 C)
Flash point	0.0 – 4.0 F (-18 to -15 C)
Evaporation rate	5.5 – 8
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	2.0
Flammability limit – upper (%)	13.0
Explosive limit - lower (%)	Not Available
Explosive limit - upper (%)	Not Available
Vapor pressure	145 mmHg @ 20 C
Vapor density	2.5
Relative density	0.82 +/- 0.02
Solubility(ies)	
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	150 C ( 302 F)
Viscosity	Not Available
Other information	
Bulk Density	6.8 lb/gal
VOC (Weight %)	20g/L SCAQMD 1168/M24

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reaction</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

### Information on likely routes of exposure

#### Acute Toxicity

Components	Species	Results
Acetone (CAS 67-64-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg
<i>Inhalation</i>		
LC50	Rat	50 mg/l, 8 hours
<i>Oral</i>		
LD50	Rat	58000 mg/kg

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## Cyclohexanone (108-94-1)

**Acute***Dermal*

LD50 Rabbit 948 mg/kg

*Inhalation*

LC50 Rat 8000 ppm, 4 hours

*Oral*

LD50 Rat 1540 mg/kg

Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity****IARC Monographs. Overall Evaluation of Carcinogenicity**

Cyclohexanone (CAS 108-94-1)	3 Not classifiable as to carcinogenicity to humans.
Polyvinyl chloride (CAS 9002-86-2)	3 Not classifiable as to carcinogenicity to humans.
Silica, amorphous, fumed (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Polyvinyl chloride (CAS 9002-86-2)	Cancer
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<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity</b>	
<b>Single exposure</b>	Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.
<b>Repeated exposure</b>	Not Classified.
<b>Aspiration Hazard</b>	May be fatal if swallowed and enters airways.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.
<b>Further information</b>	None noted.

**12. Ecological information**

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Components	Species	Results
Acetone (CAS 67-64-1)		
<b>Aquatic</b>		
Fish – LC 50	Fathead minnow ( <i>Pimephales promelas</i> )	100 mg/l, 96 hours
Cyclohexanone (108-94-1)		
<b>Aquatic</b>		
Fish – LC 50	Fathead minnow ( <i>Pimephales promelas</i> )	481-578 mg/l, 96 hours

<b>Persistence and degradability</b>	No data is available on the degradability of this product..
<b>Bio accumulative potential</b>	No data is available.
<b>Partition coefficient n-octanol / water (log Kow)</b>	
Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Methyl ethyl ketone (CAS 78-93-3)	0.29
<b>Mobility in soil</b>	Not available
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain
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into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local, regional, national or international regulations.

<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transportation information

### DOT

<b>UN number</b>	UN1993
<b>UN Proper Shipping Name</b>	Flammable liquids, n.o.s. (Acetone RQ = 5128 LBS)
<b>Transport Hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	IB2, T7, TP1, TP8, TP28
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

### IATA

<b>UN number</b>	UN1993
<b>UN Proper Shipping Name</b>	Flammable liquid, n.o.s. (Acetone, Cyclohexanone)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	3H
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### IMDG

<b>UN number</b>	UN1993
<b>UN Proper Shipping Name</b>	Flammable liquid, n.o.s. (Acetone, Cyclohexanone)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-E, S-E
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

## 15. Regulatory information

**U.S. Federal regulations** This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not Regulated

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1) LISTED

Cyclohexanone (CAS 108-94-1) LISTED

Methyl ethyl ketone (CAS 78-93-3) LISTED

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - Yes

Pressure Hazard - No

Reactivity Hazard - No

### SARA 302 Extremely hazardous substance

Not Listed

### SARA 311/312 Hazardous chemical

No

### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### Safe Drinking Water Act (SDWA)

Not regulated.

### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1) 6532

Methyl ethyl ketone (CAS 78-93-3) 6714

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1) 35 %WV

Methyl ethyl ketone (CAS 78-93-3) 35 %WV

### DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1) 6532

Methyl ethyl ketone (CAS 78-93-3) 6714

### US state regulations

#### US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

#### US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

#### US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

#### US. Rhode Island RTK

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

### US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

#### 16. Other information, including date of preparation or last revision

Issue Date	05-27-2015
Revision Date	-
Version #	01
HMIS Rating	Health: 2 Flammability: 3 Physical Hazards: 0

#### NFPA ratings



#### Disclaimer

HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>COMMON NAME:</b>	PVC Pipe and Fittings	
<b>CHEMICAL NAME:</b>	Not Applicable. Formulation, see section 3.	
<b>FORMULA:</b>	Mixture	
<b>PRODUCT CAS NO.:</b>	Mixture, see section 3.	
<b>Recommended Use:</b>	Drain Waste Vent and Pressure Pipe and Fittings	
<b>SUPPLIER:</b>	Charlotte Pipe and Foundry Company (Plastics Division)	
<b>ADDRESS:</b>	4210 Old Charlotte Highway	
<b>CITY, STATE, ZIP:</b>	Monroe, NC 28110	
<b>PHONE:</b>	+1-704-372-3650	<b>EMERGENCY PHONE:</b> +1-704-372-3650

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Toxic and irritating gases and fumes may be given off during burning or thermal decomposition. Avoid generating dust. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.



GHS Status

This material is hazardous in accordance with the hazard communication standard, 29 CFR 1910.1200

Classification of the substance or mixture

Skin irritation – Category 2

Eye irritation – Category 2 A

Specific target organ toxicity – single exposure – Category 3

Warning

Warning

Causes serious eye irritation.

GHS label pictogram

Signal word

Hazard statements

Causes skin irritation.  
May cause respiratory irritation

Precautionary statements

Prevention

Response

Avoid breathing dust/fume/gas/mist.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

Keep away from intense heat, flames.

Disposal

Dispose of in accordance with local regulations.

Hazards not otherwise classified

None known.

Relevant routes of exposure

Skin, eyes, inhalation.

Inhalation

Melted product is flammable and produces intense heat and dense smoke during burning. Irritating gases and fumes may be given off during burning or thermal decomposition.

Skin contact

Gases and fumes evolved during thermal processing or decomposition can cause skin irritation.

Eye contact

Dust can cause eye irritation. Gases and fumes evolved during thermal processing or decomposition can cause eye irritation.

Ingestion

No data available.

### 3. HAZARDOUS INGREDIENTS: COMPOSITION/INFORMATION

INGREDIENT	% WEIGHT	PEL-OSHA	TLV-ACGIH	NIOSH REL
Polyvinyl chloride CAS 9002-86-2	>80%	None established Particulates not otherwise classified: 15 mg/m <sup>3</sup>	1 mg/m <sup>3</sup> (respirable fraction) Particulates not otherwise classified: 10 mg/m <sup>3</sup> (inhalable fraction)	None established
Titanium dioxide CAS 13463-67-7	0-5%	15 mg/m <sup>3</sup> , total dust	10 mg/m <sup>3</sup> TWA	None established

### 4. FIRST AID MEASURES

**EYE CONTACT:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Consult a physician.

**SKIN CONTACT:** Rinse with water. Remove contaminated clothing and shoes. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes before reuse.

**INHALATION:** If vapors from excessive heating, burning or decomposition products are inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing, such as collar, tie, belt, or waistband. In case of inhalation of decomposition

products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance.

**INGESTION:** Wash out mouth with water. Remove dentures, if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Loosen tight clothing, such as collar, tie, belt, or waistband. Consult a physician.

**Notes to physician:** In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under surveillance for 48 hours

**Specific treatments:** None known

## 5. FIRE FIGHTING MEASURES

### FLAMMABLE PROPERTIES

**FLASH POINT:** No data. Decomposition products may be combustible.

**FLAMMABLE LIMITS:** LEL: No Data UEL: No data

**EXTINGUISHING MEDIA:** Water, foam, dry chemical. Do not use CO<sub>2</sub> on Class A fires, as a lack of cooling capacity may result in re-ignition.

**FIRE AND EXPLOSION HAZARDS:** Solid does not readily release flammable vapors. Thermoplastic polymers can burn. Smoke, Carbon Monoxide, Carbon Dioxide, Aldehydes, Hydrogen Chloride, Tin. Irritating and/or toxic substances will be emitted during burning, combustion, or decomposition. Run-off water from firefighting may have corrosive effects.

**PROTECTIVE MEASURES FOR FIRE FIGHTERS:** Firefighters must wear a NIOSH-approved, full-facepiece self-contained breathing apparatus (SCBA) operated in positive pressure mode and full turnout or bunker gear with additional chemical protective clothing as necessary to protect against thermal decomposition products.

**SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS:** If there is a fire, promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment, and emergency measures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	If specialized clothing is required to deal with decomposition products or fumes from burning or excessive heating, take note of information in Section 8 on suitable and unsuitable materials. See also information in "for non-emergency personnel."
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).



**Methods and materials for containment and clean-up**

Small spill	Avoid dust generation. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. See Section 1 for emergency contact information.
Large spill	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, waterways, basements, and confined areas. Avoid dust generation. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. See Section 1 for emergency contact information.

**7. HANDLING AND STORAGE**

Conditions for safe storage, including any incompatibilities	Store in a dry place away from direct sunlight, heat, and incompatible materials. Avoid intense heat and flames.
<b>Precautions for safe handling</b>	
Protective measures	Put on appropriate personal protective equipment (see Section 8). Do not handle until all safety precautions have been read and understood. Do not get particles, vapors or fumes in eyes, on skin, or on clothing. Do not ingest. If during normal use, the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.
Advice on general occupational hygiene	Employees must wash hands and face before eating, drinking, or smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information on hygiene measures.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below recommended and statutory limits.

**RESPIRATORY PROTECTION:** Cutting or sanding this product can generate dust. Used a properly fitted particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the respirator. A NIOSH-approved N95 single use or P95 multiple use respirator will protect the employee from at least 95% of airborne particles. Follow the respirator manufacturer's instructions for proper use. If adhesives or other substances are used with this product, refer to the product manufacturer's safety data sheet for applicable respiratory protective measures.

**SKIN PROTECTION:** Chemical-resistant, impervious gloves complying with an approved standard should be worn when handling this or any chemical product, if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures containing several substances, the protection time of the gloves cannot be accurately estimated. If adhesives or other substances are used with this product, refer to the product manufacturer's safety data sheet for applicable skin protective measures.

**BODY PROTECTION:** Personal protective equipment for the body should be selected on the task being performed and the risks involved, and should be approved by a specialist before handling this product. If adhesives or other substances are used with this product, refer to the product manufacturer's safety data sheet for applicable skin protective measures.

**EYE/FACE PROTECTION:** Safety eyewear complying with an approved standard must be used when a risk assessment indicates this is necessary to avoid exposure to dust. Particulates and dust can be formed when cutting, grinding or sanding this product. If contact with dust or particulates is possible, the following should be worn unless the assessment indicates a

higher degree of protection: safety glasses with side shields. If adhesives or other substances are used with this product, refer to the product manufacturer's safety data sheet for applicable eye and face protective measures.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE:</b>	Solid. White/grey
<b>ODOR:</b>	Not applicable.
<b>ODOR THRESHOLD:</b>	Not available
<b>BOILING POINT:</b>	Not available
<b>FLASH POINT:</b>	Not applicable
<b>FLAMMABILITY:</b>	Melted product is flammable.
<b>AUTOIGNITION TEMPERATURE:</b>	Not applicable
<b>DECOMPOSITION TEMPERATURE:</b>	Not available
<b>LOWER/UPPER EXPLOSION LIMITS:</b>	Not available
<b>VAPOR PRESSURE:</b>	Not available
<b>LIQUID DENSITY:</b>	Not available
<b>SPECIFIC GRAVITY:</b>	Approximately 1.4
<b>MELTING POINT:</b>	Not available
<b>pH:</b>	Not available
<b>SOLUBILITY:</b>	Insoluble
<b>% VOLATILE:</b>	Not available
<b>VISCOSITY:</b>	Not available

### 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal temperatures and pressures.
<b>Reactivity:</b>	Stable at normal temperatures and pressures.
<b>Conditions to avoid:</b>	Heat, flames, sparks and other sources of ignition.
<b>Incompatible materials/conditions:</b>	Consult the Charlotte Pipe and Foundry chemical resistance guide.
<b>Hazardous decomposition products:</b>	Hydrogen chloride, carbon oxides, small amounts of benzene and aromatic and aliphatic hydrocarbons, phosgene.
<b>Hazardous polymerization:</b>	Not available.

### 11. TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY:**

**SENSITIZATION:** No data available.

**MUTAGENICITY:** No data available.

**DEVELEPMENTAL:** No data available.

**Fertility:** No data available.

**CARCINOGENICITY:** On the date of preparation of this SDS, this product does not contain ingredients classified by the International Agency for Research on Cancer, National Toxicology Program Report, or OSHA at 29 CFR 1910, Subpart Z, as a carcinogen.

**REPRODUCTIVE TOXICITY:** Not available

**TERATOGENICITY:** Not available

**SPECIFIC TARGET ORGANS – SINGLE EXPOSURE:** Not available

**SPECIFIC TARGET ORGANS – REPEATED EXPOSURE:** Not available

**ASPIRATION HAZARD:** Not available

**INFORMATION ON THE LIKELY ROUTES OF EXPOSURE:**

**Potential acute health effects**

Eye contact	No known significant effects or critical hazards. Dust can cause eye irritation.
Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	Skin irritant.
Ingestion	No known significant effects or critical hazards.

**Symptoms related to the physical, chemical, and toxicological characteristics**

Eye contact	No data available.
Inhalation	No data available
Skin contact	Adverse symptoms may include irritation.
Ingestion	No data available

**Immediate, delayed and chronic effects from short term exposure**

Short term exposure

Potential immediate effects	No data available.
Potential delayed effects	No data available

Long term exposure

Potential immediate effects	No data available.
Potential delayed effects	No data available

Potential chronic effects

General	No data available.
Carcinogenicity	Not listed by OSHA, IARC or NTP. See section 11.

## 12. ECOLOGICAL INFORMATION

### Numerical measures of toxicity

No data available

### Persistence and degradability

Does not biodegrade over time.

### Bioaccumulative potential

No data available

### Mobility in soil

No data available.

Other adverse effects: No known significant or critical hazards.

## 13. DISPOSAL CONSIDERATIONS

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste should not be disposed of to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste and packaging should be recycled when possible. Incineration or landfill should only be considered when recycling is not feasible. This material must be disposed of in a safe way.

## 14. TRANSPORT INFORMATION

<b>PROPER SHIPPING NAME:</b>	Not Regulated
<b>HAZARD CLASS:</b>	Not Regulated
<b>IDENTIFICATION NUMBER:</b>	Not Regulated
<b>SHIPPING LABEL:</b>	Not Regulated
<b>PACKING GROUP:</b>	Not Regulated

## 15. REGULATORY INFORMATION

United States

TSCA 8(b):

All ingredients are listed on the U.S. Toxic Substances Control Act inventory.

Airborne unbound particles of titanium dioxide of respirable size are listed as being carcinogenic per California Proposition 65.

## 16. OTHER INFORMATION

Date of Preparation: 11 December 2013

Key To Acronyms:

Chemical Abstracts Service

CFR:	Code of Federal Regulations
HEPA	High-Efficiency Particulate Air (filter)
IARC:	International Agency for Research on Cancer
LD50	Lethal dose to 50% of exposed laboratory animals
LC50	Lethal concentration to 50% of exposed laboratory animals
LEL:	Lower Explosive Limit
mg/l	Milligrams per liter
NIOSH:	National Institute for Occupational Safety and Health (US)
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration (US)
PEL:	Permissible Exposure Limit
TSCA	Toxic Substances Control Act
TLV:	Threshold Limit Value – American Conference of Governmental Industrial Hygienists (ACGIH)
TWA:	Time Weighted Average
UEL:	Upper Explosive Limit
ug/ m <sup>3</sup>	Micrograms per cubic meter

#### **DISCLAIMER**

NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, SAFETY, SUITABILITY, STABILITY OR OTHERWISE FOR THE ABS MATERIALS AS REPRESENTED IN THIS MSDS SHEET. Charlotte Pipe and Foundry assumes no liability whatsoever for the use of or reliance upon this information. The information and data contained in this MSDS has been compiled from information believed to be accurate and is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage, handling and disposal of the product in compliance with applicable federal, state, and local laws and regulations.



# SAFETY DATA SHEET

Issue Date 22-Nov-2015

Revision Date 06-Nov-2015

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** PLASTIC ROOF CEMENT

### Other means of identification

**Product Code** HE204

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Coatings Sealant

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

HENRY COMPANY

999 N. Sepulveda Blvd., Suite 800

El Segundo, CA 90245-2716

Web Site: www.henry.com www.ca.henry.com

### Emergency telephone number

**Company Phone Number** 800-486-1278

**Emergency Telephone** CHEMTREC: 800-424-9300

CHEMTREC: 703-527-3887

CANUTEC: 613-966-6666

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

### Label elements

#### Emergency Overview

#### Warning

#### **Hazard statements**

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation. May cause drowsiness or dizziness

Flammable liquid and vapor

**Appearance** viscous**Physical state** liquid**Odor** Solvent**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 Keep container tightly closed  
 Ground/bond container and receiving equipment  
 Use explosion-proof electrical/ ventilating / lighting/ mixing / equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 If skin irritation occurs: Get medical advice/attention  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up  
 Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

May be harmful in contact with skin. Harmful to aquatic life with long lasting effects. Harmful to aquatic life.

**Unknown acute toxicity**

24.67952% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable

**Mixture**

Chemical Name	CAS No	Weight-%
Asphalt	8052-42-4	30 - 60
Solvent naphtha, petroleum, medium aliphatic	64742-88-7	10 - 30

Fullers earth	8031-18-3	7 - 13
Cellulose	9004-34-6	5 - 10
Limestone	1317-65-3	1 - 5

The exact percentage (concentration) of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
<b>Eye contact</b>	Keep eye wide open while rinsing. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off immediately with plenty of water.
<b>Inhalation</b>	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If symptoms persist, call a physician.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Rinse mouth. Never give anything by mouth to an unconscious person.
<b>Self-protection of the first aider</b>	Remove all sources of ignition.

##### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	May cause redness and tearing of the eyes. Coughing and/ or wheezing. May cause skin irritation. Drowsiness. Dizziness.
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##### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
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#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO<sub>2</sub>, sand, earth, water spray or regular foam.

**Unsuitable extinguishing media** Do not use a solid water stream as it may scatter and spread fire.

##### Specific hazards arising from the chemical

Flammable.

##### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

##### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required.
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**Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on safe handling** Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

**Incompatible materials** Strong oxidizing agents. Strong acids. Strong bases.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Asphalt 8052-42-4	TWA: 0.5 mg/m <sup>3</sup> benzene soluble aerosol fume, inhalable fraction	-	Ceiling: 5 mg/m <sup>3</sup> fume 15 min
Solvent naphtha, petroleum, medium aliphatic 64742-88-7	-	TWA: 500 ppm TWA: 2900 mg/m <sup>3</sup>	-
Cellulose 9004-34-6	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust TWA: 1 mg/m <sup>3</sup>
Limestone 1317-65-3	-	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust

NIOSH IDLH *Immediately Dangerous to Life or Health*

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

**General Hygiene Considerations** When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	liquid	<b>Odor</b>	Solvent
<b>Appearance</b>	viscous	<b>Odor threshold</b>	No information available
<b>Color</b>	black		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No information available	
<b>Melting point / freezing point</b>	No information available	
<b>Boiling point / boiling range</b>	150 C / 302 F	
<b>Flash point</b>	42 C / 108 F	Pensky-Martens Closed Cup (PMCC)
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	6	
<b>Lower flammability limit:</b>	1	
<b>Vapor pressure</b>	No information available	
<b>Vapor density</b>	3.6	
<b>Relative density</b>	1 - 1.1	
<b>Water solubility</b>	Insoluble in water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	250 C / 482 F	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	100 mm <sup>2</sup> /s	@ 40 C
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	Not an explosive	
<b>Oxidizing properties</b>	Not applicable	

### Other Information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

Heat, flames and sparks.

### Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

<b>Inhalation</b>	May cause irritation of respiratory tract. May cause drowsiness or dizziness.
<b>Eye contact</b>	Irritating to eyes.
<b>Skin contact</b>	Irritating to skin.
<b>Ingestion</b>	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt 8052-42-4	5000 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	-
Solvent naphtha, petroleum, medium aliphatic 64742-88-7	5000 mg/kg ( Rat )	= 3000 mg/kg ( Rabbit )	5.28 mg/L ( Rat ) 4 h
Cellulose 9004-34-6	5 g/kg ( Rat )	2 g/kg ( Rabbit )	5800 mg/m <sup>3</sup> ( Rat ) 4 h

Information on toxicological effects

<b>Symptoms</b>	May cause redness and tearing of the eyes. Coughing and/ or wheezing. May cause skin irritation. Vapors may cause drowsiness and dizziness.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Asphalt 8052-42-4	-	Group 2B	-	
Cellulose 9004-34-6	-	Group 1	Known	

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Not classifiable as a human carcinogen

NTP (National Toxicology Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	Target Organs. Respiratory system. Eyes. Skin. Central nervous system.
<b>STOT - repeated exposure</b>	No information available.
<b>Chronic toxicity</b>	May cause adverse effects on the bone marrow and blood-forming system.
<b>Target Organ Effects</b>	Eyes, Respiratory system, Skin, blood, Central nervous system, kidney.
<b>Aspiration hazard</b>	No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

<b>ATEmix (oral)</b>	5,252.00 mg/kg
<b>ATEmix (dermal)</b>	2,573.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	67.40 mg/l

**12. ECOLOGICAL INFORMATION**Ecotoxicity

Harmful to aquatic life with long lasting effects

65.68642 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

Chemical Name	Partition coefficient
Asphalt 8052-42-4	6

**Other adverse effects**

No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not reuse container.

**US EPA Waste Number**

D001

### 14. TRANSPORT INFORMATION

**DOT**

Not regulated (If shipped in NON BULK packaging by ground transport)

**TDG**

Not regulated (If shipped in NON BULK packaging by ground transport)

**IATA**

**UN/ID no** UN1999  
**Proper shipping name** Tars, liquid  
**Hazard Class** 3  
**Packing Group** III  
**ERG Code** 3L  
**Special Provisions** A3  
**Description** UN1999, Tars, liquid, 3, III

**IMDG**

Non-regulated per 2.3.2.5  
**UN/ID no** UN1999  
**Proper shipping name** Tars, liquid  
**Hazard Class** 3  
**Packing Group** III  
**EmS-No** F-E, S-E  
**Special Provisions** 955  
**Description** UN1999, Tars, liquid, 3, III, (42 C c.c.)

### 15. REGULATORY INFORMATION

**International Inventories**

**TSCA** Complies  
**DSL/NDL** Complies  
**EINECS/ELINCS** Complies  
**IECSC** Complies

**HE204 - PLASTIC ROOF CEMENT**

**Revision Date** 06-Nov-2015

**KECL** Complies  
**PICCS** Complies  
**AICS** Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

**Acute health hazard** Yes  
**Chronic Health Hazard** No  
**Fire hazard** Yes  
**Sudden release of pressure hazard** No  
**Reactive Hazard** No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Cellulose - 9004-34-6	Carcinogen
Quartz - 14808-60-7	Carcinogen
Cumene - 98-82-8	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Asphalt 8052-42-4			
Solvent naphtha, petroleum, medium aliphatic 64742-88-7		-	-
Cellulose 9004-34-6			
Limestone 1317-65-3			
Quartz 14808-60-7			
Ylenes (o-, m-, p- isomers) 1330-20-7			
Diethylbenzenes 25340-17-4		-	-

Cumene 98-82-8			
1,3,5-Trimethylbenzene 108-67-8	-		-

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	Health hazards 2	Flammability 2	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 2	Flammability 2	Physical hazards 0	Personal protection

Issue Date 22-Nov-2015  
Revision Date 06-Nov-2015

Revision Note  
No information available

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)



## 1. IDENTIFICATION

**PRODUCT NAME:** RootX

**DESCRIPTION:** A foaming herbicide for control of roots in pipelines.

**EPA Reg. No.:** 68464-1

**COMPANY IDENTIFICATION:**

**General Chemical Company**

PO Box 7626

Salem, OR 97303

1-800-844-4974

## 2. HAZARD IDENTIFICATION

### WARNING

Causes eye irritation

May be harmful if swallowed

May be harmful in contact with skin

May be harmful if inhaled

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>Chemical Name</u>	<u>CAS Number</u>	<u>Composition</u>	<u>TLV<sup>‡</sup></u>
Sulfamic Acid	N/A	5329-14-6	40-50%	Not Established
Quartz, Crystalline Silica	N/A	14808-60-7	1.5%	0.1 mg/m <sup>3</sup>
Dichlobenil	2,6-dichlorobenzonitrile	1194-65-6	0.55%	Not Established

‡ The Threshold Limit Value listed is an inhalation limit established by the American Conference of Governmental Industrial Hygienists (ACGIH).

## 4. FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-858-7378 for emergency medical treatment information.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Immediately call a poison control center or doctor. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

## 5. FIREFIGHTING MEASURES

**Flash point (Closed Cup):** 420 F

**Auto Ignition Temperature:** 980 F

**Flammable Limits (LFL-UFL):** Not Determined

**Fire and Explosion Hazards:** Thermal decomposition may release oxides of carbon, sulfur, and nitrogen and / or ammonia.

**Means of Extinction:** Water fog, foam, dry chemical or CO<sub>2</sub>.

**Fire Fighting Instructions:** Keep upwind and isolate hazard area. Use any means necessary to fight surrounding fire. Dike and collect any runoff to prevent entry to drains or water bodies.

**Firefighting Equipment:** Self-contained breathing apparatus and full bunker gear.

**NFPA Ratings:** Health – 2 / Flammability – 1 / Instability – 1

## 6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately observing the precautions in Section 8 of this MSDS. Control spill at the source and vacuum spill to avoid creating dust. Once all material is cleaned up and placed in disposal containers, seal the containers and arrange for disposal.

## 7. HANDLING AND STORAGE

Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash contaminated clothing before reuse.

Do not contaminate water, food, or feed by storage or disposal. Store in a dry place and avoid storage near food or feed products.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Handle only with adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

**Protective Clothing:** Applicators and other handlers, including mixers and loaders, must wear long-sleeved shirt, long pants, shoes plus socks and chemical-resistant gloves. Mixers and loaders must also wear a chemical-resistant apron. Wear a NIOSH approved personal respirator if dust from this product exceeds permissible exposure levels (Section 3).

**General:** Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Follow manufacturer's instruction for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** White to light brown powder

**Odor:** Slight aromatic

**pH:** 2 – 3 (25% solution in water)

**Density:** 17.114 lbs/gal

**Solubility:** Disperses in water

## 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** None known.

**CHEMICAL STABILITY:** Stable under normal use and storage conditions.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may release oxides of carbon, sulfur, and nitrogen and / or ammonia.

**INCOMPATIBILITY WITH OTHER MATERIALS:** Strong oxidizing agents, nitric acid or chlorine.

**POLYMERIZATION:** Will not occur.



## 11. TOXICOLOGICAL INFORMATION

### ACUTE ORAL TOXICITY

Oral LD<sub>50</sub> (rat): 5,000 mg/kg

### ACUTE DERMAL TOXICITY

Dermal LD<sub>50</sub> (rat): 2,000 mg/kg

### ACUTE INHALATION TOXICITY

Inhalation LC<sub>50</sub> (rat): 2 mg/L (4-hour)

### EYE IRRITATION

Rabbit – Slightly to moderately irritating

### SKIN IRRITATION

Rabbit – Slightly irritating

### SENSITIZATION

Guinea Pig – Not a contact sensitizer

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None known.

### CARCINOGENICITY:

**ACGIH:** Not listed

**IARC:** Not listed

**NTP:** Not listed

**OSHA:** Not listed

**MUTAGENIC DATA:** No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

**ADDITIONAL DATA:** Not known to cause reproductive or birth defects at normal exposure levels.

## 12. ECOLOGICAL INFORMATION

For terrestrial uses, do not use near a well or where drinking water is stored. Do not apply directly to water or to areas where surface water is present or to inter tidal areas below the mean high water mark. Do not contaminate water when disposing of equipment, wash water or rinsate. This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow may result in ground-water contamination.

**The following data is for the active ingredient Dichlobenil:**

### AQUATIC TOXICITY

Various Fish Species (LC<sub>50</sub> 96-hr): 5 – 13 mg/L

Daphnia (LC<sub>50</sub> 48-hr): 6.2 mg/L

Algae (EC<sub>50</sub> 5-day): 2.0 – 2.7 mg/L

### AVIAN TOXICITY

Bobwhite Quail (LD<sub>50</sub>): 683 mg/kg

### OTHER

Bees (LD<sub>50</sub> Contact): 11 g/bee

Worms (LD<sub>50</sub>): 1000 mg/kg substrate

## 13. DISPOSAL CONSIDERATIONS

**Do not contaminate water, food or feed by disposal.**

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Refer to the product label for additional container disposal instructions.

## 14. TRANSPORT INFORMATION

**DOT PROPER SHIPPING NAME:** Not regulated by DOT.

**SEVERE MARINE POLLUTANT:** No

## 15. REGULATORY INFORMATION

### FIFRA –

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS: CAUTION** Causes moderate eye irritation. Harmful if swallowed, inhaled or absorbed through skin.

**ENVIRONMENTAL HAZARDS:** This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow may result in ground-water contamination. Do not use near a well or where drinking water is stored. Do not contaminate water when disposing of equipment, wash water or rinsate.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

### SARA Title III – Section 302 Extremely Hazardous Substances

Not Listed

### SARA Title III – Section 311/312 Hazard Categories

Immediate (Acute), Delayed (Chronic)

### SARA Title III – Section 312 Threshold Planning Quantity

N/A

### SARA Title III – Section 313 Reportable Ingredients

None

### CERCLA – Section 304 Reportable Ingredients

None

### CALIFORNIA PROP 65 STATUS –

This product contains crystalline silica, a compound known to the state of California to cause cancer.

### CANADA –

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

## 16. OTHER INFORMATION

### REFER TO THE PRODUCT LABEL FOR TERMS AND CONDITIONS OF USE

#### DISCLAIMER:

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER WILL NOT BE LIABLE FOR ANY LOSS, INJURY OR DAMAGES AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, PURCHASERS AND/OR USERS OF THIS PRODUCT HEREBY WAIVE ANY STRICT LIABILITY. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR THE PARTICULAR PURPOSE, AND THERE ARE NO OTHER IMPLIED WARRANTIES, EXCEPT AS SPECIFICALLY SET FORTH ON THE PRODUCT LABEL. MANUFACTURER'S OBLIGATION ON ANY CLAIM IS LIMITED TO REPLACEMENT OF ANY DEFECTIVE PACKAGE OF ROOT . TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER WILL NOT BE LIABLE FOR ANY LOSS, INJURY OR DAMAGES TO PERSONS OR PROPERTY RESULTING FROM FAILURE OR IMPROPER USE OF THE PRODUCT, NOR WILL THE MANUFACTURER BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND SUSTAINED BY THE PURCHASER OR USER OF THIS PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, PURCHASERS AND/OR USERS OF THIS PRODUCT HEREBY WAIVE ANY STRICT LIABILITY OR PRODUCT LIABILITY CLAIM THEY MIGHT HAVE AGAINST THE MANUFACTURER AND/OR SELLER. SELLER AND MANUFACTURER ARE NOT LIABLE FOR ANY USE OF THIS PRODUCT NOT IN COMPLIANCE WITH THE DIRECTIONS ON THE PRODUCT LABEL.

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## Safety Data Sheet

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<b>Document Group:</b>	08-8962-6	<b>Version Number:</b>	10.15
<b>Issue Date:</b>	10/17/16	<b>Supersedes Date:</b>	03/24/16

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Abrasive Products, 216U, 236U

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Abrasive Product

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Abrasive Systems Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	1-888-3M HELPS (1-888-364-3577)

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

### SECTION 2: Hazard identification

#### 2.1. Hazard classification

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### 2.2. Label elements

##### Signal word

Not applicable.

##### Symbols

Not applicable.

##### Pictograms

Not applicable.

#### 2.3. Hazards not otherwise classified

None.

### SECTION 3: Composition/information on ingredients

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Ingredient	C.A.S. No.	% by Wt
Aluminum Oxide (non-fibrous)	1344-28-1	10 - 45
Lubricant	68424-16-8	1 - 5
Titanium Dioxide	13463-67-7	0.25 - 1.5
Paper Backing	None	20 - 70
Cured Resin	Mixture	20 - 50
Hookit Backing	Mixture	0 - 10
PSA Backing	Mixture	0 - 5

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

#### Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

#### Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

#### If Swallowed:

No need for first aid is anticipated.

### 4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

### 4.3. Indication of any immediate medical attention and special treatment required

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

### Hazardous Decomposition or By-Products

#### Substance

Carbon monoxide  
Carbon dioxide

#### Condition

During Combustion  
During Combustion

### 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

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Observe precautions from other sections.

### 6.2. Environmental precautions

Not applicable.

### 6.3. Methods and material for containment and cleaning up

Not applicable.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

For industrial or professional use only. Avoid breathing of dust created by sanding, grinding or machining. Combustible dust may form by action of this product on another material (substrate). Dust generated from the substrate during use of this product may be explosive if in sufficient concentration with an ignition source. Dust deposits should not be allowed to accumulate on surfaces because of the potential for secondary explosions.

### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Aluminum Oxide (non-fibrous)	1344-28-1	OSHA	TWA(as total dust):15 mg/m <sup>3</sup> ;TWA(respirable fraction):5 mg/m <sup>3</sup>	
Aluminum, insoluble compounds	1344-28-1	ACGIH	TWA(respirable fraction):1 mg/m <sup>3</sup>	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	OSHA	TWA(as total dust):15 mg/m <sup>3</sup>	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m <sup>3</sup>	A4: Not class. as human carcin

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Provide appropriate local exhaust ventilation for sanding, grinding or machining. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Provide local exhaust at process emission sources to control exposure near the source and to prevent the escape of dust into the work area. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

#### 8.2.2. Personal protective equipment (PPE)

##### Eye/face protection

To minimize the risk of injury to face and eyes, always wear eye and face protection when working at sanding or grinding operations or when near such operations. Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:  
Safety Glasses with side shields

#### **Skin/hand protection**

Wear appropriate gloves to minimize risk of injury to skin from contact with dust or physical abrasion from grinding or sanding.

#### **Respiratory protection**

Assess exposure concentrations of all materials involved in the work process. Consider material being abraded when determining the appropriate respiratory protection. Select and use appropriate respirators to prevent inhalation overexposure. An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

<b>General Physical Form:</b>	Solid
<b>Odor, Color, Grade:</b>	Solid Abrasive Product
<b>Odor threshold</b>	<i>Not Applicable</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Boiling Point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	<i>Not Applicable</i>
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Specific Gravity</b>	<i>Not Applicable</i>
<b>Solubility In Water</b>	<i>Not Applicable</i>
<b>Solubility- non-water</b>	<i>Not Applicable</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>Not Applicable</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>Not Applicable</i>
<b>Viscosity</b>	<i>Not Applicable</i>
<b>Hazardous Air Pollutants</b>	<i>No Data Available</i>
<b>Molecular weight</b>	<i>No Data Available</i>
<b>Percent volatile</b>	<i>No Data Available</i>

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

This material is considered to be non reactive under normal use conditions.

### **10.2. Chemical stability**

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Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### Inhalation:

Dust from grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

#### Skin Contact:

Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

#### Eye Contact:

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Dust created by grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### Ingestion:

No health effects are expected.

#### Carcinogenicity:

Ingredient	CAS No.	Class Description	Regulation
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

#### Additional Information:

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This document covers only the 3M product. For complete assessment, when determining the degree of hazard, the material being abraded must also be considered.

This product contains titanium dioxide. Cancer of the lungs has been observed in rats that inhaled high levels of titanium dioxide. No exposure to inhaled titanium dioxide is expected during the normal handling and use of this product. Titanium dioxide was not detected when air sampling was conducted during simulated use of similar products containing titanium dioxide. Therefore, the health effects associated with titanium dioxide are not expected during the normal use of this product.

#### Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

#### Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Aluminum Oxide (non-fibrous)	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminum Oxide (non-fibrous)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
Aluminum Oxide (non-fibrous)	Ingestion	Rat	LD50 > 5,000 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Aluminum Oxide (non-fibrous)	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation

#### Serious Eye Damage/Irritation

Name	Species	Value
Aluminum Oxide (non-fibrous)	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation

#### Skin Sensitization

Name	Species	Value
Titanium Dioxide	Human and animal	Not sensitizing

#### Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### Germ Cell Mutagenicity

Name	Route	Value
Aluminum Oxide (non-fibrous)	In Vitro	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic

#### Carcinogenicity

Name	Route	Species	Value
Aluminum Oxide (non-fibrous)	Inhalation	Rat	Not carcinogenic
Titanium Dioxide	Ingestion	Multiple animal	Not carcinogenic



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		species	
Titanium Dioxide	Inhalation	Rat	Carcinogenic

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Aluminum Oxide (non-fibrous)	Inhalation	pneumoconiosis   pulmonary fibrosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure

#### Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

## SECTION 12: Ecological information

### Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

### Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. The substrate that was abraded must be considered as a factor in the disposal method for this product. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

**EPA Hazardous Waste Number (RCRA):** Not regulated

## SECTION 14: Transport Information

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Not regulated per U.S. DOT, IATA or IMO.

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M transportation classifications are based on product formulation, packaging, 3M policies and 3M understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original 3M package is certified for U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.

## SECTION 15: Regulatory information

### 15.1. US Federal Regulations

Contact 3M for more information.

#### 311/312 Hazard Categories:

Fire Hazard - No    Pressure Hazard - No    Reactivity Hazard - No    Immediate Hazard - No    Delayed Hazard - No

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

**This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

## SECTION 16: Other information

### NFPA Hazard Classification

**Health:** 0    **Flammability:** 1    **Instability:** 0    **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

### HMIS Hazard Classification

**Health:** 0    **Flammability:** 0    **Physical Hazard:** 0    **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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# Scrub Free™ Clean Shower™

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations  
Revision Date: 09/24/2015 Date of issue: 09/24/2015

Version: 1.0

### SECTION 1: IDENTIFICATION

#### Product Identifier

**Product Form:** Mixture

**Product Name:** Scrub Free™ Clean Shower™

**Product Code:** MSDS-127

#### Intended Use of the Product

Shower cleaner

#### Name, Address, and Telephone of the Responsible Party

##### **Company**

Church & Dwight

500 Charles Ewing Blvd

Ewing Township, NJ 08628

T 1-800-524-1328

[www.churchdwight.com](http://www.churchdwight.com)

#### Emergency Telephone Number

**Emergency Number** : For Medical Emergency: 1-888-234-1828, For Chemical Emergency: 1-800-424-9300 (CHEMTREC)

### SECTION 2: HAZARDS IDENTIFICATION

This product is labeled in accordance with regulations administered by the Consumer Product Safety Commission (CPSC). The use pattern and exposure in the workplace are generally not consistent with those experienced by consumers. The requirements of the Occupational Safety and Health Administration applicable to this SDS differ from the labeling requirements of the CPSC and, as a result, this SDS may contain additional health hazard information not pertinent to consumer use and not found on the product label.

#### Classification of the Substance or Mixture

##### **Classification (GHS-US)**

Eye Irrit. 2A H319

Full text of H-phrases: see section 16

#### Label Elements

##### **GHS-US Labeling**

##### **Hazard Pictograms (GHS-US)**

:



GHS07

##### **Signal Word (GHS-US)**

:

Warning

##### **Hazard Statements (GHS-US)**

:

H319 - Causes serious eye irritation.

##### **Precautionary Statements (GHS-US)**

:

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P280 - Wear protective gloves, protective clothing, and eye protection.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

#### Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

**Unknown Acute Toxicity (GHS-US)** Not available

# Scrub Free™ Clean Shower™

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	60 - 100	Not classified
D-Glucopyranose, oligomeric, decyl octyl glycosides	(CAS No) 68515-73-1	0.1 - 1	Eye Dam. 1, H318 Aquatic Acute 3, H402
1,2-Propylene glycol	(CAS No) 57-55-6	0.1 - 1	Not classified
Ethanolamine	(CAS No) 141-43-5	0.1 - 1	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:vapor), H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 3, H412

A range of concentration as prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: see section 16

### SECTION 4: FIRST AID MEASURES

#### Description of First Aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

**Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

#### Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes serious eye irritation.

**Inhalation:** Prolonged exposure may cause irritation.

**Skin Contact:** Prolonged exposure may cause skin irritation.

**Eye Contact:** Contact causes severe irritation with redness and swelling of the conjunctiva.

**Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** None known.

#### Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

### SECTION 5: FIRE-FIGHTING MEASURES

#### Extinguishing Media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Product is not flammable.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

#### Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides.

# Scrub Free™ Clean Shower™

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### Reference to Other Sections

Refer to section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid breathing (vapor, mist, spray). Avoid all contact with skin, eyes, or clothing.

#### For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

**Environmental Precautions** Prevent entry to sewers and public waters.

### Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Strong oxidizers.

**Specific End Use(s)** Shower cleaner

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

Ethanalamine (141-43-5)		
Mexico	OEL TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
Mexico	OEL TWA (ppm)	3 ppm
Mexico	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Mexico	OEL STEL (ppm)	6 ppm
USA ACGIH	ACGIH TWA (ppm)	3 ppm
USA ACGIH	ACGIH STEL (ppm)	6 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	3 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	3 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (STEL) (ppm)	6 ppm
USA IDLH	US IDLH (ppm)	30 ppm
Alberta	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Alberta	OEL STEL (ppm)	6 ppm
Alberta	OEL TWA (mg/m <sup>3</sup> )	7.5 mg/m <sup>3</sup>
Alberta	OEL TWA (ppm)	3 ppm

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British Columbia	OEL STEL (ppm)	6 ppm
British Columbia	OEL TWA (ppm)	3 ppm
Manitoba	OEL STEL (ppm)	6 ppm
Manitoba	OEL TWA (ppm)	3 ppm
New Brunswick	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
New Brunswick	OEL STEL (ppm)	6 ppm
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	7.5 mg/m <sup>3</sup>
New Brunswick	OEL TWA (ppm)	3 ppm
Newfoundland & Labrador	OEL STEL (ppm)	6 ppm
Newfoundland & Labrador	OEL TWA (ppm)	3 ppm
Nova Scotia	OEL STEL (ppm)	6 ppm
Nova Scotia	OEL TWA (ppm)	3 ppm
Nunavut	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Nunavut	OEL STEL (ppm)	6 ppm
Nunavut	OEL TWA (mg/m <sup>3</sup> )	7.5 mg/m <sup>3</sup>
Nunavut	OEL TWA (ppm)	3 ppm
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Northwest Territories	OEL STEL (ppm)	6 ppm
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	7.5 mg/m <sup>3</sup>
Northwest Territories	OEL TWA (ppm)	3 ppm
Ontario	OEL STEL (ppm)	6 ppm
Ontario	OEL TWA (ppm)	3 ppm
Prince Edward Island	OEL STEL (ppm)	6 ppm
Prince Edward Island	OEL TWA (ppm)	3 ppm
Québec	VECD (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Québec	VECD (ppm)	6 ppm
Québec	VEMP (mg/m <sup>3</sup> )	7.5 mg/m <sup>3</sup>
Québec	VEMP (ppm)	3 ppm
Saskatchewan	OEL STEL (ppm)	6 ppm
Saskatchewan	OEL TWA (ppm)	3 ppm
Yukon	OEL STEL (mg/m <sup>3</sup> )	12 mg/m <sup>3</sup>
Yukon	OEL STEL (ppm)	6 ppm
Yukon	OEL TWA (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Yukon	OEL TWA (ppm)	3 ppm
<b>1,2-Propylene glycol (57-55-6)</b>		
Ontario	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (for assessing the visibility in a work environment where 1,2-Propylene glycol aerosol is present-aerosol only) 155 mg/m <sup>3</sup> (aerosol and vapor)
Ontario	OEL TWA (ppm)	50 ppm (aerosol and vapor)

### Exposure Controls

**Appropriate Engineering Controls:** For occupational/workplace settings: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** For occupational/workplace settings and bulk quantities: Gloves. Protective clothing. Protective goggles.



**Materials for Protective Clothing:** For occupational/workplace settings: Chemically resistant materials and fabrics.

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**Hand Protection:** For occupational/workplace settings: Wear protective gloves.

**Eye Protection:** For occupational/workplace settings: Chemical safety goggles.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Opaque, white
Odor	: As described on label
Odor Threshold	: Not available
pH	: 4 - 5
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 212 °F (100 °C)
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific Gravity	: 0.99 - 1.0
Solubility	: Water: 100% dispersion
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Hazardous reactions will not occur under normal conditions.

**Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials.

**Incompatible Materials:** Strong oxidizers.

**Hazardous Decomposition Products:** Thermal decomposition generates: Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified

**LD50 and LC50 Data:** Not available

**Skin Corrosion/Irritation:** Not classified (pH: 4 - 5)

**Serious Eye Damage/Irritation:** Causes serious eye irritation. (pH: 4 - 5)

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Teratogenicity:** Not classified

**Carcinogenicity:** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation.



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**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** Contact causes severe irritation with redness and swelling of the conjunctiva.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** None known.

### Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

<b>Ethanolamine (141-43-5)</b>	
LD50 Oral Rat	1720 mg/kg
LD50 Dermal Rabbit	1025 mg/kg
ATE US (vapors)	11.00 mg/l/4h
<b>1,2-Propylene glycol (57-55-6)</b>	
LD50 Oral Rat	20 g/kg
LD50 Dermal Rabbit	20800 mg/kg
<b>D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1)</b>	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

**Ecology - General:** Not classified.

<b>Ethanolamine (141-43-5)</b>	
LC50 Fish 1	227 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	65 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	3684 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
ErC50 (algae)	2.5 mg/l
<b>1,2-Propylene glycol (57-55-6)</b>	
LC50 Fish 1	51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	10000 mg/l (Exposure time: 24 h - Species: Daphnia magna)
LC50 Fish 2	41 - 47 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 2	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
<b>D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1)</b>	
LC50 Fish 1	96.64 mg/l

**Persistence and Degradability** Not established

### Bioaccumulative Potential

<b>Ethanolamine (141-43-5)</b>	
Log POW	-1.91 (at 25 °C)
<b>1,2-Propylene glycol (57-55-6)</b>	
BCF Fish 1	< 1
Log POW	-0.92

**Mobility in Soil** Not available

### Other Adverse Effects

**Other Information:** Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, and international regulations

**Ecology – Waste Materials:** Avoid release to the environment.

## SECTION 14: TRANSPORT INFORMATION

**In Accordance with DOT** Not regulated for transport

**In Accordance with IMDG** Not regulated for transport

**In Accordance with IATA** Not regulated for transport

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**In Accordance with TDG** Not regulated for transport

### SECTION 15: REGULATORY INFORMATION

#### US Federal and International Regulations

<b>Scrub Free™ Clean Shower™</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard
<b>Water (7732-18-5)</b>	
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Canadian DSL (Domestic Substances List) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on INSQ (Mexican national Inventory of Chemical Substances)	
<b>Ethanolamine (141-43-5)</b>	
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Canadian DSL (Domestic Substances List) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory Japanese Poisonous and Deleterious Substances Control Law Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on Turkish inventory of chemical	
<b>1,2-Propylene glycol (57-55-6)</b>	
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Canadian DSL (Domestic Substances List) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on Turkish inventory of chemical	
<b>EPA TSCA Regulatory Flag</b>	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.
<b>D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1)</b>	
Listed on the EU NLP (No Longer Polymers) inventory Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Canadian DSL (Domestic Substances List) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Korean ECL (Existing Chemicals List)	

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Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Listed on Turkish inventory of chemical

### US State Regulations

#### Ethanolamine (141-43-5)

U.S. - Massachusetts - Right To Know List  
 U.S. - New Jersey - Right to Know Hazardous Substance List  
 U.S. - Pennsylvania - RTK (Right to Know) List

#### 1,2-Propylene glycol (57-55-6)

U.S. - New Jersey - Right to Know Hazardous Substance List  
 U.S. - Pennsylvania - RTK (Right to Know) List

### Canadian Regulations

#### Scrub Free™ Clean Shower™

WHMIS Classification      Class D Division 2 Subdivision B - Toxic material causing other toxic effects



#### Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification      Uncontrolled product according to WHMIS classification criteria

#### Ethanolamine (141-43-5)

Listed on the Canadian DSL (Domestic Substances List)  
 Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification      Class B Division 3 - Combustible Liquid  
 Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects  
 Class D Division 2 Subdivision B - Toxic material causing other toxic effects  
 Class E - Corrosive Material

#### 1,2-Propylene glycol (57-55-6)

Listed on the Canadian DSL (Domestic Substances List)  
 Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification      Uncontrolled product according to WHMIS classification criteria

#### D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification      Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision Date** : 09/24/2015

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

### GHS Full Text Phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3

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Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 4	Flammable liquids Category 4
Skin Corr. 1B	Skin corrosion/irritation Category 1B
H227	Combustible liquid
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

### Party Responsible for the Preparation of This Document

Church & Dwight  
 500 Charles Ewing Blvd  
 Ewing Township, NJ 08628  
 T 1-800-524-1328

*This Product Safety Data Sheet is offered solely for your information, consideration and investigation. Church & Dwight Co., Inc. provides no warranties; either expressed or implied, and assumes no responsibility for the accuracy or completeness of data contained herein. Church & Dwight Co., Inc. urges persons receiving this information to make their own determination as to the information suitability for their particular application.*

Church&Dwight NA GHS SDS

SCS1201

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** SCS1201

**Other means of identification**

**Synonyms:** Silicone sealant (adhesive)

**Recommended use and restriction on use**

**Recommended use: Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information :** Momentive Performance Materials LLC  
260 Hudson River Road  
Waterford NY 12188

**Contact person :** commercial.services@momentive.com

**Telephone :** General information  
+1-800-295-2392

**Emergency telephone number Supplier :** CHEMTREC  
1-800-424-9300

## 2. Hazard(s) identification

**Hazard Classification**

**Health Hazards**

Skin Corrosion/Irritation	Category 2
Toxic to reproduction	Category 2

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Warning

**SCS1201**

**Hazard Statement:** Causes skin irritation.  
 Suspected of damaging fertility.

**Precautionary Statements**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wash hands thoroughly after handling.

**Response:** IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs:

**Storage:** Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None.

**3. Composition/information on ingredients**

**Mixtures**

Chemical Identity	CAS number	Content in percent (%)	Notes
Octamethylcyclotetrasiloxane	556-67-2	1 - <3%	No data available.

All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. First-aid measures**

**Ingestion:** DO NOT induce vomiting. Get medical attention immediately.

**Inhalation:** If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

**Skin Contact:** No data available.

**Eye contact:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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**Most important symptoms/effects, acute and delayed**

**Symptoms:** Treatment is symptomatic and supportive.  
**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** No data available.

**5. Fire-fighting measures**

**General Fire Hazards:** No data available.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** All standard extinguishing agents are suitable.

**Unsuitable extinguishing media:** Do not use water et.

**Specific hazards arising from the chemical:** No data available.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking.

**Special protective equipment for fire-fighters:** Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Avoid contact with eyes, skin, and clothing. Wash hands before eating, drinking, or smoking. Use only in well-ventilated areas. Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the finger and hands. Keep out of reach of children. Keep container closed.

**Methods and material for containment and cleaning up:** Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

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**7. Handling and storage**

**Precautions for safe handling:** Sensitivity to static discharge is not expected.

**Conditions for safe storage, including any incompatibilities:** Keep away from heat, sparks and open flame. Keep container tightly closed in a cool, well-ventilated place.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

None of the components have assigned exposure limits.

**Appropriate Engineering Controls**

Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**General information:** No data available.

**Eye/face protection:** Monogoggles Face shield

**Skin Protection**

**Hand Protection:** Rubber gloves are recommended.

**Other:** Wear suitable protective clothing and eye/face protection.

**Respiratory Protection:** If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

**Hygiene measures:** No data available.

**9. Physical and chemical properties**

**Appearance**

**Physical state:** solid

**Form:** Paste

**Color:** Colorless

**Odor:** Acetic acid.

**Odor threshold:** No data available.

**pH:** not applicable



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**SCS1201**

<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	93.3 C (estimated)
<b>Evaporation rate:</b>	< 1
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Heat of combustion:</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	not applicable
<b>Density:</b>	ca. 1.06 g/cm <sup>3</sup>
<b>Relative density:</b>	ca. 1.06
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble
<b>Solubility (other):</b>	Toluene
<b>Partition coefficient (n-octanol/water) Log Pow:</b>	No data available.
<b>Auto-ignition temperature:</b>	not applicable
<b>Decomposition temperature:</b>	No data available.
<b>SADT:</b>	No data available.
<b>Viscosity, dynamic:</b>	No data available.
<b>Viscosity, kinematic:</b>	20.5 mm <sup>2</sup> /s (40 C)
<b>VOC:</b>	23 g/l

<b>10. Stability and reactivity</b>	
-------------------------------------	--

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	No data available.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerisation does not occur.
<b>Conditions to avoid:</b>	None known.
<b>Incompatible Materials:</b>	None known.

**SCS1201**

**Hazardous Decomposition Products:** Carbon dioxide Acetic acid. Silicon dioxide. Measurements at temperatures above 150 C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

**11. Toxicological information**

**Information on likely routes of exposure**

**Ingestion:** No data available.  
**Inhalation:** No data available.  
**Skin Contact:** No data available.  
**Eye contact:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Ingestion:** No data available.  
**Inhalation:** No data available.  
**Skin Contact:** No data available.  
**Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**

**Product:** ATEmix: 7,307.8 mg/kg

**Specified substance(s):**

Octamethylcyclotetrasiloxane  
LD 50 (Rat): 4,800 mg/kg  
LD 50 (Mouse): 1,700 mg/kg

**Dermal**

**Product:** Not classified for acute toxicity based on available data.

**Specified substance(s):**

Octamethylcyclotetrasiloxane  
LD 50 (Rat): 2,400 mg/kg

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.



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**SCS1201**

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane  
Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)): negative (not mutagenic)  
Mouse Lymphoma Assay (OECD Guideline 476): negative (not mutagenic)

**In vivo**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane  
Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)) Inhalation (Rat, male and female): negative

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:**

This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150 C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. A MSDS for formaldehyde is available from Momentive.  
.Acetic acid released during curing. No data available.

**Specified substance(s):**

**SCS1201**

Octamethylcyclotetrasiloxane      Octamethylcyclotetrasiloxane (D4) Ingestion: Rodents given large doses via oral gavage of Octamethylcyclotetrasiloxane (1600mg/kg/day, 14 days), developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size). Inhalation: In inhalation studies, laboratory rodents exposed to Octamethylcyclotetrasiloxane (300 ppm five days/week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. This response in rats, which does not affect the animal's health, is well-documented and widely recognized. It is related to an increase of liver enzymes that metabolize and eliminate a material from the body. The increased liver weight reverses even while the D4 exposure continues. The finding is not adverse, but is considered a natural adaptive change in rats, and does not represent a hazard to humans. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents. Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation), with D4. Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found. A two-year, combined chronic/carcinogenicity study, during which rats were exposed to D4 by inhalation, data showed a statistically significant increase in a benign uterine tumor in female rats exposed at the highest level--a level much higher than the low levels that consumers or workers may encounter. An expert panel of independent scientists who have reviewed the results of this research concur that the finding seen in the two-year study occurred through a biological pathway that is specific to the rat and is not relevant to humans. Therefore, this observed effect does not indicate a potential health hazard to humans. In developmental toxicity studies, rats and rabbits were exposed to D4 at concentrations up to 700 ppm and 500 ppm, respectively. No teratogenic effects (birth defects) were observed in either study.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

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**SCS1201**

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane 3.7 % (29 d, 310 Ready Biodegradability - CO<sub>2</sub> in Sealed Vessels (Headspace Test)) Not readily biodegradable.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane Fathead Minnow, Bioconcentration Factor (BCF): 12.40

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** Log Kow: No data available.

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

Octamethylcyclotetrasiloxane No data available.

**Other adverse effects:** No data available.

**13. Disposal considerations**

**SCS1201**

**Disposal instructions:** Disposal should be made in accordance with federal, state and local regulations.

**Contaminated Packaging:** No data available.

**14. Transport information**

**DOT**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

**Special precautions for user:** This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Octamethylcyclotetrasiloxane	De minimis concentration: TSCA Section: 4% One-Time Export Notification only.

**CERCLA Hazardous Substance List (40 CFR 302.4):**  
None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**  
Immediate (Acute) Health Hazards  
Delayed (Chronic) Health Hazard

**SARA 302 Extremely Hazardous Substance**  
None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**  
None present or none present in regulated quantities.

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**SCS1201**

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Octamethylcyclotetrasiloxane	10000 lbs

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

**US. New Jersey Worker and Community Right-to-Know Act**

Chemical Identity

Dimethylpolysiloxane  
SILANE, DICHLORODIMETHYL-, REAKTION PRODUCTS WITH SILICA, Silane, dichlorodimethyl-, reaction products with silica  
Siloxanes and Silicones, di-Me, polymers with Me silsesquioxanes, hydroxy-terminated  
Octamethylcyclotetrasiloxane  
Methyltriacetoxysilane

**US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

No ingredient regulated by PA Right-to-Know Law present.

**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.



**SCS1201**

**Inventory Status:**

Australia AICS:	On or in compliance with the inventory	Remarks: None.
Canada DSL Inventory List:	On or in compliance with the inventory	Remarks: None.
EINECS, ELINCS or NLP:	On or in compliance with the inventory	Remarks: None.
apan (ENCS) List:	On or in compliance with the inventory	Remarks: None.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory	Remarks: None.
Canada NDSL Inventory:	Not in compliance with the inventory.	Remarks: None.
Philippines PICCS:	On or in compliance with the inventory	Remarks: None.
US TSCA Inventory:	On or in compliance with the inventory	Remarks: None.
New ealand Inventory of Chemicals:	On or in compliance with the inventory	Remarks: None.
Mexico INSQ:	Not in compliance with the inventory.	Remarks: None.
Ontario Inventory:	Not in compliance with the inventory.	Remarks: None.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory	Remarks: None.

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>	*	2
<b>Flammability</b>		1
<b>Physical Hazards</b>		1
<b>PERSONAL PROTECTION</b>		

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; Chronic health effect

**Issue Date:** 01/31/2017  
**Revision Date:** No data available.  
**Version #:** 2.0

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**SCS1201**

**Further Information:** No data available.

**Disclaimer:**

**Notice to reader**

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (30 days) implantation, in action or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives.  
Keep out of the reach of children.

**Further Information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

, , and TM indicate trademarks owned by or licensed to Momentive.

## 1. Identification

<b>Product identifier</b>	<b>Liquid Wrench Silicone Spray</b>	
<b>Other means of identification</b>		
<b>SDS number</b>	M914	
<b>Part No.</b>	M914, M914/6, M914/4	
<b>Tariff code</b>	3403.19.1000	
<b>Recommended use</b>	Lubricant	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Company name</b>	RSC Chemical Solutions	
<b>Address</b>	600 Radiator Road Indian Trail, NC 28079 United States	
<b>Telephone</b>	Customer Service:	(704) 821-7643
	Technical:	(704) 684-1811
<b>Website</b>	www.rscbrands.com	
<b>E-mail</b>	sds@rscbrands.com	
<b>Emergency phone number</b>	Emergency Telephone:	(303) 623-5716
	Emergency Contact:	RMPDC (877-740-5015)

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable aerosols	Category 2
<b>Health hazards</b>	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 1
	Carcinogenicity	Category 1A
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2
	Aspiration hazard	Category 1
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



**Signal word** Danger

**Hazard statement** Flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Combustible.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), Hydrotreated Light		64742-47-8	30.22
Naphtha (petroleum), Hydrotreated Heavy		64742-48-9	10 - < 20
Solvent Naphtha (petroleum), Medium Aliph.		64742-88-7	10 - < 20
Stoddard Solvent		8052-41-3	10 - < 20
Distillates (petroleum), Hydrotreated Heavy Naphthenic		64742-52-5	4.85
1000 cSt Silicone		63148-62-9	4.28
Carbon Dioxide		124-38-9	2.81
1,2,4-Trimethylbenzene		95-63-6	1 - < 3
BENZENE, DIMETHYL		1330-20-7	1 - < 3
NAPHTHALENE		91-20-3	1 - < 3
Nonane		111-84-2	1 - < 3
Trimethylbenzene		25551-13-7	1 - < 3
BENZENE		71-43-2	< 1
BENZENE, METHYL-		108-88-3	< 1
BENZENE,1-METHYLETHYL-		98-82-8	< 1
ETHYLBENZENE		100-41-4	< 1
HEXANE		110-54-3	< 1
Other components below reportable levels			< 1

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. <span style="float: right;">549</span>
<b>Most important symptoms/effects, acute and delayed</b>	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Powder. Dry chemicals. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
<b>General fire hazards</b>	Flammable aerosol. Combustible.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift. Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe the mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
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Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
BENZENE (CAS 71-43-2)	STEL	5 ppm
	TWA	1 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
BENZENE, DIMETHYL (CAS 1330-20-7)	PEL	435 mg/m3	
		100 ppm	
BENZENE, 1-METHYLETHY L- (CAS 98-82-8)	PEL	245 mg/m3	
		50 ppm	
Carbon Dioxide (CAS 124-38-9)	PEL	9000 mg/m3	
		5000 ppm	
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	PEL	5 mg/m3	Mist.
		2000 mg/m3	
ETHYLBENZENE (CAS 100-41-4)	PEL	500 ppm	
		435 mg/m3	
HEXANE (CAS 110-54-3)	PEL	100 ppm	
		1800 mg/m3	
Naphtha (petroleum), Hydrotreated Heavy (CAS 64742-48-9)	PEL	500 ppm	
		400 mg/m3	
NAPHTHALENE (CAS 91-20-3)	PEL	100 ppm	
		50 mg/m3	
Stoddard Solvent (CAS 8052-41-3)	PEL	10 ppm	
		2900 mg/m3	
		500 ppm	

#### US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
BENZENE (CAS 71-43-2)	Ceiling	25 ppm
	TWA	10 ppm
BENZENE, METHYL- (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm	
BENZENE (CAS 71-43-2)	STEL	2.5 ppm	
	TWA	0.5 ppm	
BENZENE, DIMETHYL (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	

**US. ACGIH Threshold Limit Values**

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
BENZENE, METHYL- (CAS 108-88-3)	TWA	20 ppm	
BENZENE, 1-METHYLETHYL- (CAS 98-82-8)	TWA	50 ppm	
Carbon Dioxide (CAS 124-38-9)	STEL	30000 ppm	
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5000 ppm	Inhalable fraction.
	TWA	5 mg/m <sup>3</sup>	
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm	
HEXANE (CAS 110-54-3)	TWA	50 ppm	
NAPHTHALENE (CAS 91-20-3)	TWA	10 ppm	
Nonane (CAS 111-84-2)	TWA	200 ppm	
Solvent Naphtha (petroleum), Medium Aliph. (CAS 64742-88-7)	TWA	200 mg/m <sup>3</sup>	Non-aerosol.
Stoddard Solvent (CAS 8052-41-3)	TWA	100 ppm	
Trimethylbenzene (CAS 25551-13-7)	TWA	25 ppm	

**US. NIOSH: Pocket Guide to Chemical Hazards**

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m <sup>3</sup>	
		25 ppm	
BENZENE (CAS 71-43-2)	STEL	1 ppm	
	TWA	0.1 ppm	
	STEL	560 mg/m <sup>3</sup>	
BENZENE, METHYL- (CAS 108-88-3)	TWA	150 ppm	
		375 mg/m <sup>3</sup>	
		100 ppm	
BENZENE, 1-METHYLETHYL- (CAS 98-82-8)	TWA	245 mg/m <sup>3</sup>	
		50 ppm	
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m <sup>3</sup>	
	TWA	30000 ppm 9000 mg/m <sup>3</sup>	
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	Ceiling	5000 ppm 1800 mg/m <sup>3</sup>	
	STEL	10 mg/m <sup>3</sup>	Mist.
Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)	TWA	100 mg/m <sup>3</sup>	
	STEL	545 mg/m <sup>3</sup>	
ETHYLBENZENE (CAS 100-41-4)	TWA	125 ppm	
		435 mg/m <sup>3</sup>	
		100 ppm	
HEXANE (CAS 110-54-3)	TWA	180 mg/m <sup>3</sup>	
		50 ppm	
Naphtha (petroleum), Hydrotreated Heavy (CAS 64742-48-9)	TWA	400 mg/m <sup>3</sup>	

Components	Type	Value	Form
NAPHTHALENE (CAS 91-20-3)	STEL	100 ppm 75 mg/m3	
	TWA	15 ppm 50 mg/m3	
Nonane (CAS 111-84-2)	TWA	10 ppm 1050 mg/m3	
	TWA	200 ppm 100 mg/m3	
Solvent Naphtha (petroleum), Medium Aliph. (CAS 64742-88-7) Stoddard Solvent (CAS 8052-41-3)	Ceiling	1800 mg/m3	
	TWA	350 mg/m3	

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
BENZENE (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*
BENZENE, DIMETHYL (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*
BENZENE, METHYL- (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*
ETHYLBENZENE (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
HEXANE (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion, without hydrolysis	Urine	*

\* - For sampling details, please see the source document.

**Exposure guidelines**

**US - California OELs: Skin designation**

BENZENE (CAS 71-43-2)	Can be absorbed through the skin.
BENZENE, METHYL- (CAS 108-88-3)	Can be absorbed through the skin.
BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Can be absorbed through the skin.
HEXANE (CAS 110-54-3)	Can be absorbed through the skin.
NAPHTHALENE (CAS 91-20-3)	Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

BENZENE, METHYL- (CAS 108-88-3)	Skin designation applies.
BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Skin designation applies.

**US - Tennessee OELs: Skin designation**

BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Can be absorbed through the skin.
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**US ACGIH Threshold Limit Values: Skin designation**

BENZENE (CAS 71-43-2)	Can be absorbed through the skin.
HEXANE (CAS 110-54-3)	Can be absorbed through the skin.
NAPHTHALENE (CAS 91-20-3)	Can be absorbed through the skin.
Solvent Naphtha (petroleum), Medium Aliph. (CAS 64742-88-7)	Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**

BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Can be absorbed through the skin.
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**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Can be absorbed through the skin.
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<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields, goggles or full facepiece.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	Chemical respirator with organic vapor cartridge and full facepiece. Chemical respirator with organic vapor cartridge and full facepiece if threshold limits are exceeded.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
<b>9. Physical and chemical properties</b>	
<b>Appearance</b>	Clear. Liquid
<b>Physical state</b>	Liquid.
<b>Form</b>	Aerosol.
<b>Color</b>	Pale yellow
<b>Odor</b>	Petroleum
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	-94 °F (-70 °C) estimated
<b>Initial boiling point and boiling range</b>	314.6 °F (157 °C) estimated
<b>Flash point</b>	117.0 °F (47.2 °C)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	0.7 % estimated
<b>Flammability limit - upper (%)</b>	6 % estimated
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	0.41 hPa estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	229 °F (109.44 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	6.80 lbs/gal
<b>Explosive properties</b>	Not explosive.

Flame extension	25 in
Flammability (flash back)	No
Flammability class	Combustible II estimated
Heat of combustion (NFPA 30B)	27.36 kJ/g estimated
Moisture	< 0.03 %
Oxidizing properties	Not oxidizing.
Percent volatile	7.89 % estimated
Refractive index	1.44
Specific gravity	0.82
VOC	58.5 % w/w

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong acids. Strong oxidizing agents. Halogens.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

### Information on toxicological effects

<b>Acute toxicity</b>	May be fatal if swallowed and enters airways. Harmful if inhaled. Narcotic effects.
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Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 3160 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 2000 ppm, 48 Hours
<b>Oral</b>		
LD50	Rat	6 g/kg
BENZENE (CAS 71-43-2)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Mouse	9980 ppm
	Rat	10000 ppm, 7 Hours
<b>Oral</b>		
LD50	Mouse	4700 mg/kg
	Rat	3306 mg/kg

BENZENE, DIMETHYL (CAS 1330-20-7)

**Acute**

**Dermal**

LD50	Rabbit	> 43 g/kg
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**Inhalation**

LC50	Mouse	3907 mg/l, 6 Hours
	Rat	6350 mg/l, 4 Hours

**Oral**

LD50	Mouse	1590 mg/kg
	Rat	3523 - 8600 mg/kg

BENZENE, METHYL- (CAS 108-88-3)

**Acute**

**Dermal**

LD50	Rabbit	12124 mg/kg 14.1 ml/kg
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**Inhalation**

LC50	Mouse	5320 ppm, 8 Hours 400 ppm, 24 Hours
	Rat	26700 ppm, 1 Hours 12200 ppm, 2 Hours 8000 ppm, 4 Hours

**Oral**

LD50	Rat	2.6 g/kg
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BENZENE,1-METHYLETHYL- (CAS 98-82-8)

**Acute**

**Inhalation**

LC50	Mouse	2000 ppm, 7 Hours 24.7 mg/l, 2 Hours
	Rat	8000 ppm, 4 Hours

**Oral**

LD50	Rat	1400 mg/kg
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ETHYLBENZENE (CAS 100-41-4)

**Acute**

**Dermal**

LD50	Rabbit	17800 mg/kg
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**Oral**

LD50	Rat	3500 mg/kg
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HEXANE (CAS 110-54-3)

**Acute**

**Inhalation**

LC50	Mouse	48000 ppm, 4 Hours
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**Oral**

LD50	Rat	28710 mg/kg
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Naphtha (petroleum), Hydrotreated Heavy (CAS 64742-48-9)

**Acute**

**Inhalation**

LC50	Rat	61 mg/l, 4 Hours
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**Oral**

LD50	Rat	> 25 ml/kg
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NAPHTHALENE (CAS 91-20-3)

**Acute**

**Dermal**

LD50	Rabbit	> 2 g/kg
	Rat	> 20 g/kg

**Oral**

LD50	Guinea pig	1200 mg/kg
	Rat	490 mg/kg

Nonane (CAS 111-84-2)

**Acute**

**Inhalation**

LC50	Rat	3200 ppm, 4 Hours
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Trimethylbenzene (CAS 25551-13-7)

**Acute**

**Oral**

LD50	Rat	8970 mg/kg
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\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** May cause genetic defects.

**Carcinogenicity** May cause cancer.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

BENZENE (CAS 71-43-2)	1 Carcinogenic to humans.
BENZENE, DIMETHYL (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.
BENZENE, METHYL- (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
BENZENE,1-METHYLETHYL- (CAS 98-82-8)	2B Possibly carcinogenic to humans.
ETHYLBENZENE (CAS 100-41-4)	2B Possibly carcinogenic to humans.
NAPHTHALENE (CAS 91-20-3)	2B Possibly carcinogenic to humans.
Stoddard Solvent (CAS 8052-41-3)	3 Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

BENZENE (CAS 71-43-2)	Cancer
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**US. National Toxicology Program (NTP) Report on Carcinogens**

BENZENE (CAS 71-43-2)	Known To Be Human Carcinogen.
BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Reasonably Anticipated to be a Human Carcinogen.
NAPHTHALENE (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.

**Reproductive toxicity** Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals.

**Specific target organ toxicity - single exposure** May cause drowsiness and dizziness.

**Specific target organ toxicity - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Chronic effects** May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**12. Ecological information**

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

1,2,4-Trimethylbenzene (CAS 95-63-6)

**Aquatic**

Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> )	7.19 - 8.28 mg/l, 96 hours
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1000 cSt Silicone (CAS 63148-62-9)

**Aquatic**

Fish	LC50	Channel catfish ( <i>Ictalurus punctatus</i> )	2.36 - 4.15 mg/l, 96 hours
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BENZENE (CAS 71-43-2)

**Aquatic**

Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	8.76 - 15.6 mg/l, 48 hours
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Fish	LC50	Rainbow trout,donaldson trout ( <i>Oncorhynchus mykiss</i> )	7.2 - 11.7 mg/l, 96 hours
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BENZENE, DIMETHYL (CAS 1330-20-7)

**Aquatic**

Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	7.711 - 9.591 mg/l, 96 hours
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BENZENE, METHYL- (CAS 108-88-3)

**Aquatic**

Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	5.46 - 9.83 mg/l, 48 hours
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Fish	LC50	Coho salmon,silver salmon ( <i>Oncorhynchus kisutch</i> )	8.11 mg/l, 96 hours
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BENZENE,1-METHYLETHYL- (CAS 98-82-8)

**Aquatic**

Crustacea	EC50	Brine shrimp ( <i>Artemia</i> sp.)	3.55 - 11.29 mg/l, 48 hours
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Fish	LC50	Rainbow trout,donaldson trout ( <i>Oncorhynchus mykiss</i> )	2.7 mg/l, 96 hours
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Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)

**Aquatic**

Fish	LC50	Rainbow trout,donaldson trout ( <i>Oncorhynchus mykiss</i> )	2.9 mg/l, 96 hours
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ETHYLBENZENE (CAS 100-41-4)

**Aquatic**

Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	1.37 - 4.4 mg/l, 48 hours
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Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> )	7.5 - 11 mg/l, 96 hours
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HEXANE (CAS 110-54-3)

**Aquatic**

Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> )	2.101 - 2.981 mg/l, 96 hours
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Naphtha (petroleum), Hydrotreated Heavy (CAS 64742-48-9)

**Aquatic**

Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> )	2.7 - 5.1 mg/l, 48 hours
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Fish	LC50	Rainbow trout,donaldson trout ( <i>Oncorhynchus mykiss</i> )	8.8 mg/l, 96 hours
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8.8 mg/l, 96 hours

NAPHTHALENE (CAS 91-20-3)

**Aquatic**

Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	1.09 - 3.4 mg/l, 48 hours
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Fish	LC50	Pink salmon ( <i>Oncorhynchus gorbuscha</i> )	1.11 - 1.68 mg/l, 96 hours
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\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

**Partition coefficient n-octanol / water (log Kow)**

BENZENE	2.13
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**Partition coefficient n-octanol / water (log Kow)**

BENZENE, DIMETHYL	3.12 - 3.2
BENZENE, METHYL-	2.73
BENZENE, 1-METHYLETHYL-	3.66
ETHYLBENZENE	3.15
HEXANE	3.9
NAPHTHALENE	3.3
Nonane	5.46
Stoddard Solvent	3.16 - 7.15

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

**14. Transport information****DOT**

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Consumer Commodity
<b>Transport hazard class(es)</b>	
<b>Class</b>	ORM-D
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	8, 146, 335, IB3, T4, TP1, TP29
<b>Packaging exceptions</b>	155
<b>Packaging non bulk</b>	203
<b>Packaging bulk</b>	241

**IATA**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosol, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

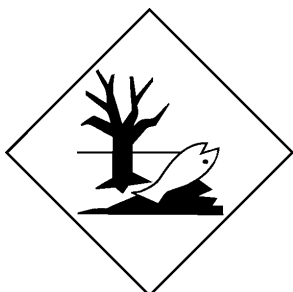
**IMDG**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>EmS</b>	F-D, S-U

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.  
**IATA; IMDG**



**Marine pollutant**



**General information** IMDG Regulated Marine Pollutant.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Nonane (CAS 111-84-2) 1.0 % One-Time Export Notification only.

### CERCLA Hazardous Substance List (40 CFR 302.4)

BENZENE (CAS 71-43-2)	Listed.
BENZENE, DIMETHYL (CAS 1330-20-7)	Listed.
BENZENE, METHYL- (CAS 108-88-3)	Listed.
BENZENE, 1-METHYLETHYL- (CAS 98-82-8)	Listed.
ETHYLBENZENE (CAS 100-41-4)	Listed.
HEXANE (CAS 110-54-3)	Listed.
NAPHTHALENE (CAS 91-20-3)	Listed.
Nonane (CAS 111-84-2)	Listed.

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

BENZENE (CAS 71-43-2)	Cancer
	Central nervous system
	Blood
	Aspiration
	Skin
	Eye
	respiratory tract irritation
	Flammability

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard categories</b>	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

Not listed.

**SARA 311/312 Hazardous chemical** No**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
1,2,4-Trimethylbenzene	95-63-6	1 - < 3
BENZENE, DIMETHYL	1330-20-7	1 - < 3
NAPHTHALENE	91-20-3	1 - < 3
BENZENE	71-43-2	< 1
BENZENE, METHYL-	108-88-3	< 1
BENZENE,1-METHYLETHYL-ETHYLBENZENE	98-82-8	< 1
ETHYLBENZENE	100-41-4	< 1
HEXANE	110-54-3	< 1

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

BENZENE (CAS 71-43-2)  
 BENZENE, DIMETHYL (CAS 1330-20-7)  
 BENZENE, METHYL- (CAS 108-88-3)  
 BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
 ETHYLBENZENE (CAS 100-41-4)  
 HEXANE (CAS 110-54-3)  
 NAPHTHALENE (CAS 91-20-3)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

BENZENE, METHYL- (CAS 108-88-3) 6594

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

BENZENE, METHYL- (CAS 108-88-3) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

BENZENE, METHYL- (CAS 108-88-3) 594

**US state regulations****US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 BENZENE (CAS 71-43-2)  
 BENZENE, DIMETHYL (CAS 1330-20-7)  
 BENZENE, METHYL- (CAS 108-88-3)  
 BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
 Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)  
 Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)  
 ETHYLBENZENE (CAS 100-41-4)  
 HEXANE (CAS 110-54-3)  
 Naphtha (petroleum), Hydrotreated Heavy (CAS 64742-48-9)  
 NAPHTHALENE (CAS 91-20-3)  
 Solvent Naphtha (petroleum), Medium Aliph. (CAS 64742-88-7)  
 Stoddard Solvent (CAS 8052-41-3)

**US. Massachusetts RTK - Substance List**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 BENZENE (CAS 71-43-2)  
 BENZENE, DIMETHYL (CAS 1330-20-7)  
 BENZENE, METHYL- (CAS 108-88-3)  
 BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
 Carbon Dioxide (CAS 124-38-9)  
 Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)



Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)  
 ETHYLBENZENE (CAS 100-41-4)  
 HEXANE (CAS 110-54-3)  
 Naphtha (petroleum), Hydrotreated Heavy (CAS 64742-48-9)  
 NAPHTHALENE (CAS 91-20-3)  
 Nonane (CAS 111-84-2)  
 Solvent Naphtha (petroleum), Medium Aliph. (CAS 64742-88-7)  
 Stoddard Solvent (CAS 8052-41-3)  
 Trimethylbenzene (CAS 25551-13-7)

**US. New Jersey Worker and Community Right-to-Know Act**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 BENZENE (CAS 71-43-2)  
 BENZENE, DIMETHYL (CAS 1330-20-7)  
 BENZENE, METHYL- (CAS 108-88-3)  
 BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
 Carbon Dioxide (CAS 124-38-9)  
 Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)  
 ETHYLBENZENE (CAS 100-41-4)  
 HEXANE (CAS 110-54-3)  
 Naphtha (petroleum), Hydrotreated Heavy (CAS 64742-48-9)  
 NAPHTHALENE (CAS 91-20-3)  
 Nonane (CAS 111-84-2)  
 Solvent Naphtha (petroleum), Medium Aliph. (CAS 64742-88-7)  
 Stoddard Solvent (CAS 8052-41-3)  
 Trimethylbenzene (CAS 25551-13-7)

**US. Pennsylvania Worker and Community Right-to-Know Law**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 BENZENE (CAS 71-43-2)  
 BENZENE, DIMETHYL (CAS 1330-20-7)  
 BENZENE, METHYL- (CAS 108-88-3)  
 BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
 Carbon Dioxide (CAS 124-38-9)  
 Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)  
 ETHYLBENZENE (CAS 100-41-4)  
 HEXANE (CAS 110-54-3)  
 NAPHTHALENE (CAS 91-20-3)  
 Nonane (CAS 111-84-2)  
 Solvent Naphtha (petroleum), Medium Aliph. (CAS 64742-88-7)  
 Stoddard Solvent (CAS 8052-41-3)  
 Trimethylbenzene (CAS 25551-13-7)

**US. Rhode Island RTK**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 BENZENE (CAS 71-43-2)  
 BENZENE, DIMETHYL (CAS 1330-20-7)  
 BENZENE, METHYL- (CAS 108-88-3)  
 BENZENE,1-METHYLETHYL- (CAS 98-82-8)  
 ETHYLBENZENE (CAS 100-41-4)  
 HEXANE (CAS 110-54-3)  
 NAPHTHALENE (CAS 91-20-3)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

BENZENE (CAS 71-43-2)	Listed: February 27, 1987
BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Listed: April 6, 2010
ETHYLBENZENE (CAS 100-41-4)	Listed: June 11, 2004
NAPHTHALENE (CAS 91-20-3)	Listed: April 19, 2002

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

BENZENE (CAS 71-43-2)	Listed: December 26, 1997
BENZENE, METHYL- (CAS 108-88-3)	Listed: January 1, 1991

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

BENZENE (CAS 71-43-2)	Listed: December 26, 1997
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**International Inventories**

562

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	06-01-2015
<b>Revision date</b>	09-12-2016
<b>Version #</b>	06
<b>HMIS® ratings</b>	Health: 3* Flammability: 4 Physical hazard: 0
<b>NFPA ratings</b>	Health: 2 Flammability: 3 Instability: 0

**NFPA ratings****Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.



## 1. Identification

<b>Product identifier</b>	<b>Bulk Ice Control Salt with YPS</b>
<b>Other means of identification</b>	
<b>SDS number</b>	NB2
<b>Synonyms</b>	Sodium Chloride (Salt). Ice Control Salt.
<b>Recommended use</b>	Salt may be intended for food or animal feed (agricultural) as well as several industrial applications including deicing and water conditioning.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Manufacturer</b>	
<b>Company name</b>	Cargill Incorporated
<b>Address</b>	Minneapolis, MN 55440
<b>Telephone</b>	1-888-385-7258
<b>Website</b>	www.cargillsalt.com
<b>Emergency telephone number</b>	CHEMTREC (800) 424-9300

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>OSHA defined hazards</b>	Not classified.
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	The mixture does not meet the criteria for classification.
<b>Precautionary statement</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.

## 3. Composition/information on ingredients

### Mixtures

<b>Chemical name</b>	<b>CAS number</b>	<b>%</b>
Sodium Chloride	7647-14-5	95.8-99.8
Sodium Ferrocyanide Decahydrate	13601-19-9	0.0050-0.0100

GRAS Substance (Generally Recognized As Safe).

## 4. First-aid measures

<b>Inhalation</b>	If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.

<b>Ingestion</b>	Give one or two glasses of water if patient is alert and able to swallow. Get medical attention if symptoms occur. 564
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	This product is not flammable or combustible.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Avoid inhalation of dust from the spilled material. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Collect dust using a vacuum cleaner equipped with HEPA filter. Minimize dust generation and accumulation. Avoid release to the environment. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Provide appropriate exhaust ventilation at places where dust is formed. Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with eyes. Avoid contact with water and moisture. Keep away from strong acids. Practice good housekeeping.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Becomes hygroscopic at 70-75% relative humidity. Avoid humid or wet conditions as product will cake and become hard.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Unvented, tight fitting goggles should be worn in dusty areas.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

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**9. Physical and chemical properties**

<b>Appearance</b>	White crystalline solid
<b>Physical state</b>	Solid.
<b>Form</b>	Crystalline solid.
<b>Color</b>	White to opaque
<b>Odor</b>	Halogen odor when heated
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	1473.8 F (801 C)
<b>Initial boiling point and boiling range</b>	2669 F (1465 C) (760 mmHg)
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	2.4 mm Hg (1376.6 F (747 C))
<b>Vapor density</b>	Not available.
<b>Relative density</b>	2.16 (H2O = 1)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	26.4 %
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Bulk density</b>	35 - 83 lb/ft
<b>Molecular formula</b>	NaCl
<b>Molecular weight</b>	58.44
<b>pH in aqueous solution</b>	6 - 9

**10. Stability and reactivity**

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
<b>Incompatible materials</b>	Avoid contact with strong acids. Becomes corrosive to metals when wet.
<b>Hazardous decomposition products</b>	May evolve chlorine gas when in contact with strong acids.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Expected to be a low ingestion hazard.
<b>Inhalation</b>	Inhalation of dusts may cause respiratory irritation.
<b>Skin contact</b>	Prolonged or repeated skin contact may cause irritation.
<b>Eye contact</b>	Dust in the eyes will cause irritation.

### Symptoms related to the physical, chemical and toxicological characteristics

Eye and skin contact: Exposure may cause temporary irritation, redness, or discomfort. For ingestion, consuming less than a few grams would not be harmful. The following effects were observed after ingesting an excessive quantity: nausea and vomiting, diarrhea, cramps, restlessness, irritability, dehydration, water retention, nose bleed, gastrointestinal tract damage, fever, sweating, sunken eyes, high blood pressure, muscle weakness, dry mouth and nose, shock, cerebral edema (fluid on brain), pulmonary edema (fluid in lungs), blood cell shrinkage, and brain damage (due to dehydration of brain cells). Death is generally due to cardiovascular collapse or CNS damage.

### Information on toxicological effects

**Acute toxicity** In some cases of confirmed hypertension, ingestion may result in elevated blood pressure.

Components	Species	Test Results
Sodium Chloride (CAS 7647-14-5)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Mouse	4000 mg/kg
	Rat	3000 mg/kg
<i>Other</i>		
LD50	Mouse	2602 mg/kg

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Dust in the eyes will cause irritation.

### Respiratory or skin sensitization

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Due to the physical form of the product it is not an aspiration hazard.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Sodium Chloride (CAS 7647-14-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )
Fish	LC50	Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.  
**Other adverse effects** None known.

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### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.  
**Local disposal regulations** Dispose in accordance with all applicable regulations.  
**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.  
**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).  
**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

Not regulated as dangerous goods.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

### 15. Regulatory information

**US federal regulations** All components are on the U.S. EPA TSCA Inventory List. This product is not known to be a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

#### **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

#### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

#### **Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### **SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

#### **SARA 313 (TRI reporting)**

Not regulated.

#### **Other federal regulations**

##### **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

##### **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
apan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New ealand	New ealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 12-August-2014

**Revision date** -

**Version #** 01

**HMIS® ratings**  
 Health: 1  
 Flammability: 0  
 Physical hazard: 0  
 Personal protection: A

**Disclaimer** All statements, technical information and recommendations contained herein are, the best of our knowledge, reliable and accurate; however no warranty, either expressed or implied is made with respect thereto, nor will any liability be assumed for damages resultant from the use of the material described.

It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. It is also the responsibility of the user to maintain a safe workplace. The user should consider the health hazards and safety information provided herein as a guide and should take the necessary steps to instruct employees and to develop work practice procedures to ensure a safe work environment.

This information is not intended as a license to operate under, or a recommendation to practice or infringe upon any patent of this Company or others covering any process, composition of matter or use.





1. Identification

Product identifier Oatey 95/5 Lead Free Solder (Plumbing, Acid or Rosin Core)
Other means of identification
SDS number 1600E
Synonyms Part Numbers: 22004, 22018, 22025, 22017, 53026, 53181, 53027, 53189, 53171, 53173, 53175, 53177, 53190, 29031, 53170, 53172, 53174, 53176
Recommended use Joining Copper Pipes. Joining Copper Tubing.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Company Name Oatey Co.
Address 4700 West 160th St. Cleveland, OH 44135
Telephone 216-267-7100
E-mail info@oatey.com
Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)
Emergency First Aid 1-877-740-5015
Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Hazardous to the aquatic environment, long-term hazard Category 3
OSHA defined hazards Not classified.
Label elements
Hazard symbol None.
Signal word None.
Hazard statement Harmful to aquatic life with long lasting effects.
Precautionary statement
Prevention Avoid release to the environment.
Response Wash hands after handling.
Storage Store away from incompatible materials.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

Table with 3 columns: Chemical name, CAS number, %
Tin 7440-31-5 60-100
Antimony 7440-36-0 3-7

4. First-aid measures

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact Rinse with water. Get medical attention if irritation develops and persists.

<b>Ingestion</b>	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Dry sand. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Use care in handling/storage.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Antimony (CAS 7440-36-0)	PEL	0.5 mg/m3
Tin (CAS 7440-31-5)	PEL	2 mg/m3

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m3
Tin (CAS 7440-31-5)	TWA	2 mg/m3

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m3
Tin (CAS 7440-31-5)	TWA	2 mg/m3

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).	571
<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.	
<b>Individual protection measures, such as personal protective equipment</b>		
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).	
<b>Skin protection</b>		
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.	
<b>Other</b>	Wear suitable protective clothing.	
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.	
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.	
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.	

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Solid.
<b>Form</b>	Solid. Wire.
<b>Color</b>	Silver.
<b>Odor</b>	None.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	450 - 464 F (232.22 - 240 C)
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	9 - 11
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not soluble.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>VOC (Weight %)</b>	0

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.

<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Chlorine.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

### Information on toxicological effects

<b>Acute toxicity</b>	Not available.
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

<b>Ecotoxicity</b>	Harmful to aquatic life with long lasting effects.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal. 573  
 Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**14. Transport information****DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

**15. Regulatory information****US federal regulations**

This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
 All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Antimony (CAS 7440-36-0) LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Hazard categories**

Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Antimony	7440-36-0	3-7

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Antimony (CAS 7440-36-0)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations****US. Massachusetts RTK - Substance List**

Antimony (CAS 7440-36-0)  
 Tin (CAS 7440-31-5)

**US. New Jersey Worker and Community Right-to-Know Act**

Antimony (CAS 7440-36-0)  
 Tin (CAS 7440-31-5)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Antimony (CAS 7440-36-0)  
 Tin (CAS 7440-31-5)

**US. Rhode Island RTK**

Antimony (CAS 7440-36-0)

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 17-December-2014

**Revision date** -

**Version #** 01

**HMIS® ratings**  
Health: 0  
Flammability: 0  
Physical hazard: 0

**Disclaimer** Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

# SAFETY DATA SHEET

2330

## Section 1. Identification

**Product name** : KRYLON® Fusion for Plastic® Sunbeam

**Product code** : 2330

**Other means of identification** : Not available.

**Product type** : Aerosol.

**Relevant identified uses of the substance or mixture and uses advised against**

Not applicable.

**Manufacturer** : Krylon Products Group  
101 W. Prospect Avenue  
Cleveland, OH 44115

**Emergency telephone number of the company** : US / Canada: (216) 566-2917  
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

**Product Information Telephone Number** : US / Canada: (800) 457-9566  
Mexico: Not Available

**Regulatory Information Telephone Number** : US / Canada: (216) 566-2902  
Mexico: Not Available

**Transportation Emergency Telephone Number** : US / Canada: (216) 566-2917  
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE AEROSOLS - Category 1  
GASES UNDER PRESSURE - Compressed gas  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 43.4%  
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 66.7%  
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 68.9%

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

## Section 2. Hazards identification

<b>Hazard statements</b>	<ul style="list-style-type: none"> <li>: Extremely flammable aerosol.</li> <li>Contains gas under pressure; may explode if heated.</li> <li>Causes serious eye irritation.</li> <li>Causes skin irritation.</li> <li>May cause an allergic skin reaction.</li> <li>Suspected of causing cancer.</li> <li>May be fatal if swallowed and enters airways.</li> <li>May cause respiratory irritation.</li> <li>May cause drowsiness or dizziness.</li> <li>May cause damage to organs through prolonged or repeated exposure.</li> </ul>
<b>Precautionary statements</b>	
<b>General</b>	<ul style="list-style-type: none"> <li>: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.</li> </ul>
<b>Prevention</b>	<ul style="list-style-type: none"> <li>: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Pressurized container: Do not pierce or burn, even after use.</li> </ul>
<b>Response</b>	<ul style="list-style-type: none"> <li>: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.</li> </ul>
<b>Storage</b>	<ul style="list-style-type: none"> <li>: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.</li> </ul>
<b>Disposal</b>	<ul style="list-style-type: none"> <li>: Dispose of contents and container in accordance with all local, regional, national and international regulations.</li> </ul>
<b>Supplemental label elements</b>	<p>DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. <b>WARNING:</b> This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.</p> <p>Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.</p>
<b>Hazards not otherwise classified</b>	<ul style="list-style-type: none"> <li>: <b>DANGER:</b> Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.</li> </ul>

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.
<b>CAS number/other identifiers</b>	



## Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Propane	≥10 - ≤25	74-98-6
Acetone	≥10 - ≤25	67-64-1
n-Butyl Acetate	≥10 - ≤25	123-86-4
Lt. Aliphatic Hydrocarbon Solvent	≥10 - ≤25	64742-89-8
Butane	≤10	106-97-8
Ethyl 3-Ethoxypropionate	≤5	763-69-9
Titanium Dioxide	≤3	13463-67-7
Xylene	≤3	1330-20-7
Barium Sulfate	≤3	7727-43-7
Ethylbenzene	<1	100-41-4
Hydrotreated Heavy Petroleum Naphtha	≤0.3	64742-48-9
Unsaturated Fatty Acids	≤0.3	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

## Section 4. First aid measures

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
metal oxide/oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Propane	<p><b>NIOSH REL (United States, 10/2016).</b> TWA: 1000 ppm 10 hours. TWA: 1800 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 1000 ppm 8 hours. TWA: 1800 mg/m<sup>3</sup> 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2017). Oxygen Depletion [Asphyxiant].</b></p>
Acetone	<p><b>ACGIH TLV (United States, 3/2017).</b> TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b> TWA: 250 ppm 10 hours. TWA: 590 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 1000 ppm 8 hours. TWA: 2400 mg/m<sup>3</sup> 8 hours.</p>
n-Butyl Acetate	<p><b>NIOSH REL (United States, 10/2016).</b> TWA: 150 ppm 10 hours. TWA: 710 mg/m<sup>3</sup> 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 150 ppm 8 hours. TWA: 710 mg/m<sup>3</sup> 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2017).</b> STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.</p>
Lt. Aliphatic Hydrocarbon Solvent Butane	<p>None.</p> <p><b>NIOSH REL (United States, 10/2016).</b> TWA: 800 ppm 10 hours. TWA: 1900 mg/m<sup>3</sup> 10 hours.</p> <p><b>ACGIH TLV (United States, 3/2017).</b> STEL: 1000 ppm 15 minutes.</p>
Ethyl 3-Ethoxypropionate Titanium Dioxide	<p>None.</p> <p><b>ACGIH TLV (United States, 3/2017).</b> TWA: 10 mg/m<sup>3</sup> 8 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust</p>
Xylene	<p><b>ACGIH TLV (United States, 3/2017).</b> TWA: 100 ppm 8 hours. TWA: 434 mg/m<sup>3</sup> 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m<sup>3</sup> 8 hours.</p>
Barium Sulfate	<p><b>ACGIH TLV (United States, 3/2017).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction</p> <p><b>NIOSH REL (United States, 10/2016).</b> TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Respirable fraction TWA: 10 mg/m<sup>3</sup> 10 hours. Form: Total fraction</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction</p>



## Section 8. Exposure controls/personal protection

Butane

**CA Ontario Provincial (Canada, 7/2015).**

TWA: 150 ppm 8 hours.  
 STEL: 200 ppm 15 minutes.

**CA Quebec Provincial (Canada, 1/2014).**

TWAEV: 150 ppm 8 hours.  
 TWAEV: 713 mg/m<sup>3</sup> 8 hours.  
 STEV: 200 ppm 15 minutes.  
 STEV: 950 mg/m<sup>3</sup> 15 minutes.

**CA Saskatchewan Provincial (Canada, 7/2013).**

STEL: 200 ppm 15 minutes.  
 TWA: 150 ppm 8 hours.

**CA Alberta Provincial (Canada, 4/2009).**

8 hrs OEL: 1000 ppm 8 hours.

**CA British Columbia Provincial (Canada, 6/2017).**

TWA: 600 ppm 8 hours.  
 STEL: 750 ppm 15 minutes.

**CA Quebec Provincial (Canada, 1/2014).**

TWAEV: 800 ppm 8 hours.  
 TWAEV: 1900 mg/m<sup>3</sup> 8 hours.

**CA Ontario Provincial (Canada, 7/2015).**

TWA: 800 ppm 8 hours.

**CA Saskatchewan Provincial (Canada, 7/2013).**

STEL: 1250 ppm 15 minutes.  
 TWA: 1000 ppm 8 hours.

Xylene

**CA Alberta Provincial (Canada, 4/2009).**

8 hrs OEL: 100 ppm 8 hours.  
 15 min OEL: 651 mg/m<sup>3</sup> 15 minutes.  
 15 min OEL: 150 ppm 15 minutes.  
 8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.

**CA British Columbia Provincial (Canada, 6/2017).**

TWA: 100 ppm 8 hours.  
 STEL: 150 ppm 15 minutes.

**CA Quebec Provincial (Canada, 1/2014).**

TWAEV: 100 ppm 8 hours.  
 TWAEV: 434 mg/m<sup>3</sup> 8 hours.  
 STEV: 150 ppm 15 minutes.  
 STEV: 651 mg/m<sup>3</sup> 15 minutes.

**CA Ontario Provincial (Canada, 7/2015).**

STEL: 150 ppm 15 minutes.  
 TWA: 100 ppm 8 hours.

**CA Saskatchewan Provincial (Canada, 7/2013).**

STEL: 150 ppm 15 minutes.  
 TWA: 100 ppm 8 hours.

Ethylbenzene

**CA Alberta Provincial (Canada, 4/2009).**

8 hrs OEL: 100 ppm 8 hours.  
 8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.  
 15 min OEL: 543 mg/m<sup>3</sup> 15 minutes.  
 15 min OEL: 125 ppm 15 minutes.

**CA British Columbia Provincial (Canada, 6/2017).**

TWA: 20 ppm 8 hours.

**CA Ontario Provincial (Canada, 7/2015).**

TWA: 20 ppm 8 hours.

**CA Quebec Provincial (Canada, 1/2014).**

TWAEV: 100 ppm 8 hours.  
 TWAEV: 434 mg/m<sup>3</sup> 8 hours.

## Section 8. Exposure controls/personal protection

STEV: 125 ppm 15 minutes.  
 STEV: 543 mg/m<sup>3</sup> 15 minutes.  
**CA Saskatchewan Provincial (Canada, 7/2013).**  
 STEL: 125 ppm 15 minutes.  
 TWA: 100 ppm 8 hours.

### Occupational exposure limits (Mexico)

<b>Ingredient name</b>	<b>Exposure limits</b>
Propane	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 1000 ppm 8 hours.
Acetone	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.
n-Butyl Acetate	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.
Butane	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 1000 ppm 8 hours.
Xylene	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethylbenzene	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 20 ppm 8 hours.

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

## Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.9%  
Upper: 12.8%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1.55 [Air = 1]
- Relative density** : 0.75
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <0.205 cm<sup>2</sup>/s (<20.5 cSt)
- Molecular weight** : Not applicable.
- Aerosol product**
- Type of aerosol** : Spray
- Heat of combustion** : 28.448 kJ/g

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Oral	Rat	5800 mg/kg	-
	LD50 Dermal	Rabbit	>17600 mg/kg	-
n-Butyl Acetate	LD50 Oral	Rat	10768 mg/kg	-
	LC50 Inhalation Vapor	Rat	658000 mg/m <sup>3</sup>	4 hours
Butane	LD50 Oral	Rat	3200 mg/kg	-
Ethyl 3-Ethoxypropionate	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
Xylene	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
Ethylbenzene	LD50 Oral	Rat	3500 mg/kg	-
	LC50 Inhalation Vapor	Rat	8500 mg/m <sup>3</sup>	4 hours
Hydrotreated Heavy Petroleum Naphtha	LD50 Oral	Rat	>6 g/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
n-Butyl Acetate	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
Ethyl 3-Ethoxypropionate	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-
Xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
Ethylbenzene	Skin - Moderate irritant	Rabbit	-	100 Percent	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Classification

## Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide	-	2B	-
Xylene	-	3	-
Ethylbenzene	-	2B	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Propane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Acetone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
n-Butyl Acetate	Category 3	Not applicable.	Narcotic effects
Lt. Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Butane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Xylene	Category 3	Not applicable.	Respiratory tract irritation
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Hydrotreated Heavy Petroleum Naphtha	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Propane	Category 2	Not determined	Not determined
Acetone	Category 2	Not determined	Not determined
Lt. Aliphatic Hydrocarbon Solvent	Category 2	Not determined	Not determined
Butane	Category 2	Not determined	Not determined
Xylene	Category 2	Not determined	Not determined
Ethylbenzene	Category 2	Not determined	Not determined
Hydrotreated Heavy Petroleum Naphtha	Category 2	Not determined	Not determined

### Aspiration hazard

Name	Result
Propane	ASPIRATION HAZARD - Category 1
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Xylene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
Hydrotreated Heavy Petroleum Naphtha	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Not available.

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

#### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

#### Delayed and immediate effects and also chronic effects from short and long term exposure

##### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

##### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

##### Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

#### Numerical measures of toxicity

##### Acute toxicity estimates

Route	ATE value
Oral	33373.2 mg/kg
Dermal	19081.6 mg/kg
Inhalation (gases)	80946.6 ppm

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 6900 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
n-Butyl Acetate	Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
	Acute LC50 32 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 18000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Lt. Aliphatic Hydrocarbon Solvent	Acute LC50 >100000 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Titanium Dioxide	Fish - Fundulus heteroclitus	96 hours
Xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Barium Sulfate	Acute EC50 634 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
Ethylbenzene	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6530 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
n-Butyl Acetate	-	-	Readily
Xylene	-	-	Readily
Ethylbenzene	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	high
Xylene	-	8.1 to 25.9	low
Hydrotreated Heavy Petroleum Naphtha	-	10 to 2500	high

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.






## Section 12. Ecological information

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>Mexico Classification</b>	<b>IATA</b>	<b>IMDG</b>
<b>UN number</b>	UN1950	UN1950	UN1950	UN1950	UN1950
<b>UN proper shipping name</b>	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
<b>Transport hazard class(es)</b>	2.1 	2.1 	2.1 	2.1 	2.1 
<b>Packing group</b>	-	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.	No.
<b>Additional information</b>	-  <b>ERG No.</b> 126	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).  <b>ERG No.</b> 126	-  <b>ERG No.</b> 126	-	<b>Emergency schedules</b> F-D, S-U

**Special precautions for user** : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

**Proper shipping name** : Not available.

**Ship type** : Not available.

**Pollution category** : Not available.

**Date of issue/Date of revision** : 4/18/2018 **Date of previous issue** : 3/2/2018

**Version** : 9 15/17

2330 KRYLON® Fusion for Plastic®  
Sunbeam

**SHW-85-NA-GHS-US**

## Section 15. Regulatory information

### [SARA 313](#)

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

### [California Prop. 65](#)

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

## Section 16. Other information

### [Hazardous Material Information System \(U.S.A.\)](#)

Health	*	3
Flammability		0
Physical hazards		3

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

### [Procedure used to derive the classification](#)

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

### [History](#)

**Date of printing** : 4/18/2018

**Date of issue/Date of revision** : 4/18/2018

**Date of previous issue** : 3/2/2018

**Version** : 9

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

### [Notice to reader](#)

## Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

## 1. IDENTIFICATION

**Product Identity / Trade Name:** Stainless Steel Wire Brushes

**Product Use:** Abrasive materials used on metals, concrete, masonry and building materials.

**Manufacturer:** United Abrasives, Inc.  
185 Boston Post Road  
North Windham, CT 06256

**Internet:** www.unitedabrasives.com

**Information Phone:** (860) 456-7131 **Emergency Phone:** (860) 456-7131

**Date of Preparation:** September 16, 2015

## 2. HAZARD(S) IDENTIFICATION

**Classification:** This product is classified as a manufactured article. The use of this product will not result in exposure to hazardous substances under normal conditions of use based on test data.

**Hazards not otherwise classified:** The exposure to the dust/fumes from the material being brushed and the potential hazard from this exposure must be evaluated

**Label Elements:**  
None required.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### Mixtures:

Chemical name	CAS No.	Concentration
Iron	7439-89-6	<90
Nickel	7440-02-0	<38
Chromium	7440-47-3	10-30
Manganese	7439-96-5	<15
Molybdenum	7439-98-7	<8
Silicon	7440-21-3	<5

Other elements may be present, such as Cu, Ti. These are not classified as hazardous, or are below the concentration levels for classification of these alloys as hazardous

**The specific identity and/or exact percentage has been withheld as a trade secret.**

## 4. FIRST-AID MEASURES

*Under normal handling and use, exposure to solid forms of this material present few health hazards. Subsequent operations such as grinding, melting or welding may produce potentially hazardous dust or fumes which can be inhaled or come in contact with the skin or eyes.*

**Ingestion:** If dust is swallowed, seek medical attention.

**Inhalation:** Inhalation of excessive fume or dust concentrations may result in respiratory tract irritation. Move person to fresh air until recovered.



**Eye Contact:** Flush eyes thoroughly with water, holding open eyelids. Get medical attention if irritation occurs and persists.

**Skin Contact:** Wash dust from skin with soap and water. Launder contaminated clothing before reuse.

**Most important symptoms/effects, acute and delayed:** Use may generate dust that may cause eye and respiratory tract irritation. Dust may be harmful by inhalation and ingestion.

**Indication of immediate medical attention and special treatment, if necessary:** None known.

## 5. FIRE-FIGHTING MEASURES

**Suitable (and unsuitable) extinguishing media:** Use any media that is appropriate for the surrounding fire.

**Specific hazards arising from the chemical:** This product is not combustible, however, consideration must be given to the potential fire/explosion hazards from the base material being processed. Many materials create flammable/explosive dusts or turnings when brushed, machined or ground.

**Special protective equipment and precautions for fire-fighters:** Full face, self-contained breathing apparatus and full protective clothing when necessary.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Minimize generation of dust. Use appropriate protective equipment to avoid inhalation and eye contact if dust is generated.

**Environmental precautions:** Notify authorities as required by local, state and federal regulations.

**Methods and materials for containment and cleaning up:** Pick up, sweep up or vacuum any dust, and place in a container for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling and use, especially before eating, drinking or smoking. Consider potential exposure to components of the base materials or coatings being brushed, machined or ground. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

**Conditions for safe storage, including any incompatibilities:** Store in a dry location. See section 10 for more information on incompatible materials.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure guidelines:

Iron	None Established
Nickel (as nickel metal)	1 mg/kg TWA OSHA PEL 1.5 mg/kg TWA ACGIH TLV (inhalable fraction)
Chromium	0.5 mg/m <sup>3</sup> TWA ACGIH TLV 1 mg/m <sup>3</sup> TWA OSHA PEL
Manganese	0.2 mg/m <sup>3</sup> TWA ACGIH TLV (respirable) 5 mg/m <sup>3</sup> Ceiling OSHA PEL
Silicon	15 mg/m <sup>3</sup> TWA OSHA PEL (total dust) 5 mg/m <sup>3</sup> TWA OSHA PEL (respirable fraction)
Molybdenum (as insoluble compounds)	10 mg/m <sup>3</sup> TWA ACGIH TLV (inhalable) 3 mg/m <sup>3</sup> TWA ACGIH TLV (respirable) 15 mg/m <sup>3</sup> TWA OSHA PEL (total dust)

Note: Consider also components from base materials and coatings.

**Appropriate engineering controls:** Ensure adequate ventilation to maintain exposures below occupational limits. Whenever possible the use of local exhaust ventilation or other engineering controls is the preferred method of controlling exposure to airborne dust and fume to meet established occupational exposure limits. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

**Individual protection measures, such as personal protective equipment:**

**Respiratory protection:** Use an approved respirator if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the coatings or base material being ground in selecting proper respiratory protection. Refer to local regulations for specific standards where appropriate. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use respirators in accordance with applicable regulations and good industrial hygiene practice.

**Hand protection:** Cloth or leather gloves recommended.

**Skin protection:** Protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required.

**Eye protection:** Safety goggles or face shield over safety glasses with side shields.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance (physical state, color, etc.):** Solid gray-black brushes.

**Odor:** No Odor

<b>Odor threshold:</b> Not applicable	<b>pH:</b> Not applicable
<b>Melting point/freezing point:</b> Not applicable	<b>Boiling Point:</b> Not applicable
<b>Flash point:</b> Non-Combustible	<b>Evaporation rate:</b> Not applicable
<b>Flammability (solid, gas):</b> Not applicable	
<b>Flammable limits: LEL:</b> Not applicable	<b>UEL:</b> Not applicable
<b>Vapor pressure:</b> Not applicable	<b>Vapor density:</b>
<b>Relative density:</b> 7	<b>Solubility(ies):</b> Not soluble
<b>Partition coefficient: n-octanol/water:</b> Not applicable	<b>Auto-ignition temperature:</b> Not applicable
<b>Decomposition temperature:</b> Not applicable	<b>Viscosity:</b> Not applicable

## 10. STABILITY AND REACTIVITY

**Reactivity:** Not reactive

**Chemical stability:** Stable

**Possibility of hazardous reactions:** None known.

**Conditions to avoid:** None known

**Incompatible materials:** None known

**Hazardous decomposition products:** Dust from brushing and grinding could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being brushed or coatings applied to the base material.

## 11. TOXICOLOGICAL INFORMATION

*Inhalation, skin, eyes. Product as shipped does not present an inhalation hazard; however subsequent operations may create dusts or fumes which could be inhaled.*

**Routes of exposure:**

**Ingestion:** None expected under normal use conditions. May be harmful if swallowed.

**Inhalation:** Dust may cause respiratory irritation. May be harmful by inhalation. Prolonged inhalation may cause lung damage.

**Eye:** Dust may cause eye irritation. Dust particles may cause abrasive injury to the eyes.

**Skin:** None expected under normal use conditions. Rubbing product across the skin may cause mechanical irritation or abrasions.

**Chronic:** Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. Chronic effects may be aggravated by smoking. Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being brushed. Most of the dust generated during brushing is from the base material being brushed and the potential hazard from this exposure must be evaluated.

**Carcinogenicity:** None of the components of this product are listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

**Germ Cell Mutagenicity:** Not expected to be a mutagen.

**Reproductive Toxicity:** Not expected to cause reproductive toxicity.

**Numerical measures of toxicity:**

No toxicity data available for the product.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:**

No data available for the product.

**Persistence and degradability:** Biodegradation is not applicable to inorganic compounds.

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available.

**Other adverse effects:** No data available.

## 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State and Local regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

**Packaging:** Dispose of in accordance with Federal, State and Local regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

## 14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	None	Not Regulated	None	None	
TDG	None	Not Regulated	None	None	

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable – product is transported only in packaged form.

**Special precautions:** None identified.

## 15. REGULATORY INFORMATION

**SARA Section 311/312 Hazard Categories:** Chronic Health

**SARA Section 313:** This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Toxic Chemical Release Reporting): None

**California Proposition 65:** WARNING: You create dust when you cut, sand, drill or grind materials such as wood, paint, cement, masonry or metal. This product & the dust it creates contains chemicals known in the state of California to cause cancer and birth defects or other reproductive harm.

**EPA TSCA Inventory:** All the components in the product are listed on the TSCA inventory.

## 16. OTHER INFORMATION

**NFPA Rating:** Health = 1      Flammability = 0      Instability = 0  
**HMIS Rating:** Health = 1      Flammability = 0      Physical Hazard = 0  
\*Chronic health hazard

**Date Previous Revision:** 3/31/15

**Date This Revision:** 9/16/15

**Revision Summary:**

06/26/12: Periodic MSDS review: Updated exposure limits.

3/31/15: Changed all sections. Updated format to GHS.

9/16/15: Change in formulation. All sections revised.

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of United Abrasives, Inc., it is the user's obligation to assure safe use of this product.

## 1. Identification

**Product identifier**                                 **STRUCTO-LITE® Basecoat Plaster**

**Other means of identification**

**SDS number**                                     53000010015

**Synonyms**   Construction Plaster.

**Recommended use**                                 Interior use.

**Recommended restrictions**                     Use in accordance with manufacturer's recommendations.

### Manufacturer / Importer / Supplier / Distributor information

**Company name**                                     United States Gypsum Company

**Address**   550 West Adams Street  
Chicago, Illinois 60661-3637

**Telephone**   1-800-874-4968

**Website**   www.usg.com

**Emergency phone number**                     1-800-507-8899

## 2. Hazard(s) identification

**Physical hazards**                                 Not classified.

**Health hazards**                                     Carcinogenicity                                     Category 1A  
Specific target organ toxicity, repeated exposure (inhalation)                     Category 2 (Lung)

**OSHA defined hazards**                         Not classified.

### Label elements



**Signal word**   Danger

**Hazard statement**                                 May cause cancer. May cause damage to organs (Lung) through prolonged or repeated exposure.

**Precautionary statement**

**Prevention**                                     Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust.

**Response**                                     If exposed or concerned: Get medical advice/attention.

**Storage**   Store locked up.

**Disposal**   Dispose of in accordance with local, state, and federal regulations.

**Hazard(s) not otherwise classified (HNOC)**     None known.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1)	26499-65-0	> 90
Perlite	93763-70-3	< 10

### Impurities

Chemical name	CAS number	%
Crystalline silica (Quartz)	14808-60-7	< 2

Raw materials in this product contain respirable crystalline silica as an impurity. The weight percent of respirable crystalline silica found in this product is < 2%. Exposures to respirable crystalline silica during the normal use of this product must be determined by workplace hygiene testing.

#### 4. First-aid measures

##### Inhalation

Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. Move injured person into fresh air and keep person calm under observation. Get medical attention if symptoms persist.

##### Skin contact

Contact with dust: Rinse area with plenty of water. Get medical attention if irritation develops or persists.

##### Eye contact

Dust in the eyes: Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.

##### Ingestion

Plaster of Paris hardens and if ingested may result in stomach and intestinal blockage. Drinking gelatin solutions or large volumes of water may delay setting.

##### Most important symptoms/effects, acute and delayed

Under normal conditions of intended use, this product is not expected to be a health risk. Dust may irritate throat and respiratory system and cause coughing.

##### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

##### General information

Ensure that medical personnel are aware of the material(s) involved.

#### 5. Fire-fighting measures

##### Suitable extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

##### Unsuitable extinguishing media

Not applicable.

##### Specific hazards arising from the chemical

Not a fire hazard.

##### Special protective equipment and precautions for firefighters

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

##### Fire-fighting equipment/instructions

Use standard firefighting procedures and consider the hazards of other involved materials.

##### Specific methods

Cool material exposed to heat with water spray and remove it if no risk is involved.

#### 6. Accidental release measures

##### Personal precautions, protective equipment and emergency procedures

See Section 8 of the SDS for Personal Protective Equipment.

##### Methods and materials for containment and cleaning up

Vacuum up the spilled material. Vacuums used for this purpose should be equipped with HEPA filters. Containers must be labeled. Collect in approved containers and seal securely. For waste disposal, see Section 13 of the SDS.

##### Environmental precautions

Avoid discharge to drains, sewers, and other water systems.

#### 7. Handling and storage

##### Precautions for safe handling

Minimize dust production when mixing, or opening and closing bags. Avoid inhalation of dust. Wear appropriate personal protective equipment. Wash hands after handling. Observe good industrial hygiene practices and use appropriate lifting techniques.

##### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated place. Store away from incompatible materials. Avoid contact with acids, water, and moisture.

#### 8. Exposure controls/personal protection

##### Occupational exposure limits

###### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)	PEL	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Impurities	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m <sup>3</sup>	Total dust.
		0.1 mg/m <sup>3</sup>	Respirable.
		2.4 mppcf	Respirable.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
Impurities	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Perlite (CAS 93763-70-3)	TWA	5 mg/m <sup>3</sup>	Respirable.
		10 mg/m <sup>3</sup>	Total
Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)	TWA	5 mg/m <sup>3</sup>	Respirable.
		10 mg/m <sup>3</sup>	Total
Impurities	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.05 mg/m <sup>3</sup>	Respirable dust.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Provide sufficient ventilation for operations causing dust formation. Observe occupational exposure limits and minimize the risk of exposure.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear approved safety goggles.
<b>Skin protection</b>	
<b>Hand protection</b>	It is a good industrial hygiene practice to minimize skin contact. For prolonged or repeated skin contact use suitable protective gloves.
<b>Other</b>	Normal work clothing (long sleeved shirts and long pants) is recommended.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.
<b>Thermal hazards</b>	None.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment separately from regular wash. Observe any medical surveillance requirements.

**9. Physical and chemical properties****Appearance**

<b>Physical state</b>	Solid.
<b>Form</b>	Powder.
<b>Color</b>	White to off-white.
<b>Odor</b>	Low to no odor.
<b>Odor threshold</b>	Not applicable.
<b>pH</b>	6 - 8
<b>Melting point/freezing point</b>	Not applicable.

<b>Initial boiling point and boiling range</b>	Not applicable.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not applicable.
<b>Flammability limit - upper (%)</b>	Not applicable.
<b>Explosive limit - lower (%)</b>	Not applicable.
<b>Explosive limit - upper (%)</b>	Not applicable.
<b>Vapor pressure</b>	Not applicable.
<b>Vapor density</b>	Not applicable.
<b>Relative density</b>	2.4 - 2.8 (H <sub>2</sub> O=1)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	0.15-0.40 g/100g (H <sub>2</sub> O)
<b>Partition coefficient (n-octanol/water)</b>	Not applicable.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition temperature</b>	2642 °F (1450 °C)
<b>Viscosity</b>	Not applicable.
<b>Other information</b>	
<b>Bulk density</b>	45 - 55 lb/ft <sup>3</sup> (dry)
<b>VOC (Weight %)</b>	0 %

## 10. Stability and reactivity

<b>Reactivity</b>	Not available.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	When mixed with water this product can become very hot. Encasing or making moulds of any body part can cause serious burns that may require surgical removal of affected tissue and even amputation of encased body part.
<b>Incompatible materials</b>	Acids. Exposure to water and acids must be supervised because the reactions are vigorous and produce large amounts of heat. Crystalline silica in contact with powerful oxidizing agents, such as fluorine, chlorine trifluoride and oxygen difluoride, may cause fires. Crystalline silica will dissolve in hydrofluoric acid and produce a corrosive gas, silicon tetrafluoride.
<b>Hazardous decomposition products</b>	Calcium oxides. Sulfur oxides. Silicon oxides.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Inhalation</b>	Inhalation of dusts may cause respiratory irritation. Prolonged and repeated exposure to airborne respirable crystalline silica can cause silicosis and/or lung cancer.
<b>Skin contact</b>	Under normal conditions of intended use, this product does not pose a skin hazard.
<b>Eye contact</b>	Direct contact with airborne particulates may cause temporary irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Dust may irritate eyes and mucous membranes of the nose, throat and upper respiratory system causing sneezing and/or coughing.

### Information on toxicological effects

<b>Acute toxicity</b>	Not expected to be a hazard under normal conditions of intended use.
<b>Skin corrosion/irritation</b>	Prolonged or repeated skin contact may cause drying, cracking, or irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.



<b>Skin sensitization</b>	Not a skin sensitizer. Plaster of Paris has displayed little sensitization potential.	601
<b>Germ cell mutagenicity</b>	Data does not suggest that this product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Repeated and prolonged exposure to high levels of respirable crystalline silica may cause cancer.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Crystalline silica (Quartz) (CAS 14808-60-7)	1 Carcinogenic to humans.	
<b>NTP Report on Carcinogens</b>		
Crystalline silica (Quartz) (CAS 14808-60-7)	Known To Be Human Carcinogen.	
<b>Reproductive toxicity</b>	Not expected to be a reproductive hazard.	
<b>Specific target organ toxicity - single exposure</b>	No data available, but none expected.	
<b>Specific target organ toxicity - repeated exposure</b>	May damage lung tissue through repeated and prolonged exposure to high levels of respirable crystalline silica particles.	
<b>Aspiration hazard</b>	Due to the physical form of the product it is not an aspiration hazard.	
<b>Chronic effects</b>	Prolonged and routine inhalation of high levels of respirable crystalline silica particles can lead to the lung disease known as silicosis. Some studies show excess numbers of cases of scleroderma, connective tissue disorders, lupus, rheumatoid arthritis, chronic kidney diseases and end-stage kidney disease in workers exposed to respirable crystalline silica. Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.	

## 12. Ecological information

<b>Ecotoxicity</b>	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Components	Species	Test Results
Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) > 1970 mg/l, 96 hours
<b>Persistence and degradability</b>	Calcium sulfate dissolves in water forming calcium and sulfate ions.	
<b>Bioaccumulative potential</b>	Bioaccumulation is not expected.	
<b>Mobility in soil</b>	No data available.	
<b>Other adverse effects</b>	None expected.	

## 13. Disposal considerations

<b>Disposal instructions</b>	Dispose in accordance with applicable federal, state, and local regulations. Recycle responsibly.
<b>Local disposal regulations</b>	Dispose of in accordance with local regulations.
<b>Hazardous waste code</b>	Not regulated.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Dispose of in accordance with local regulations.

## 14. Transport information

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.

## 15. Regulatory information

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	
	Not regulated.

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Crystalline silica (Quartz) (CAS 14808-60-7)  
 Perlite (CAS 93763-70-3)  
 Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)

**US. New Jersey Worker and Community Right-to-Know Act**

Crystalline silica (Quartz) (CAS 14808-60-7)  
 Perlite (CAS 93763-70-3)  
 Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Crystalline silica (Quartz) (CAS 14808-60-7)  
 Perlite (CAS 93763-70-3)  
 Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Crystalline silica (Quartz) (CAS 14808-60-7)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).  
 A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

Issue date	29-January-2014
Revision date	-
Version #	01

**Further information**

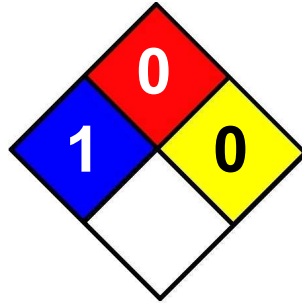
Crystalline silica: Raw materials in this product may contain respirable crystalline silica. Exposures to respirable crystalline silica are not expected during the normal use of this product. However, actual levels must be determined by workplace hygiene testing. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer.

Plaster of Paris: Is classified as a hazardous substance but is generally considered a safe material for routine use. When plaster of Paris is used responsibly it is not considered as a dangerous material. However, when mixed with water this product can become very hot. DO NOT attempt to make a cast enclosing any part of the body. Encasing any body part can cause serious burns and even amputation of the encased body part.

NFPA Ratings:  
Health: 1  
Flammability: 0  
Physical hazard: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**NFPA Ratings**



**Disclaimer**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

## 1. Identification

<b>Product identifier</b>	<b>Gunk Tar-n-Bug Remover</b>	
<b>Other means of identification</b>		
<b>SDS number</b>	TR1	
<b>Part No.</b>	TR1	
<b>Tariff code</b>	3402.20.5100	
<b>Recommended use</b>	Cleaner	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Company name</b>	RSC Chemical Solutions	
<b>Address</b>	600 Radiator Road Indian Trail, NC 28079 United States	
<b>Telephone</b>	Customer Service:	(704) 821-7643
	Technical:	(704) 684-1811
<b>Website</b>	www.rscbrands.com	
<b>E-mail</b>	Not available.	
<b>Emergency phone number</b>	Emergency Telephone:	(303) 623-5716
	Emergency Contact:	RMPDC (877-740-5015)

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable aerosols	Category 2
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Carcinogenicity	Category 1B
<b>Environmental hazards</b>	Not classified.	
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Flammable aerosol. Causes skin irritation. May cause cancer.
<b>Precautionary statement</b>	
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	If on skin: Wash with plenty of water. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
<b>Storage</b>	Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), Hydrotreated Heavy Naphthenic		64742-52-5	50 - < 60
Kerosine (petroleum)		8008-20-6	30 - < 40
Carbon Dioxide		124-38-9	1 - < 3
Other components below reportable levels			1 - < 3

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
<b>Most important symptoms/effects, acute and delayed</b>	Headache. Nausea, vomiting. Diarrhea. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
<b>General fire hazards</b>	Flammable aerosol.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Refer to attached safety data sheets and/or instructions for use. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
<b>Environmental precautions</b>	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Carbon Dioxide (CAS 124-38-9)	PEL	9000 mg/m <sup>3</sup>	
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	PEL	5000 ppm	Mist.
		5 mg/m <sup>3</sup>	
		2000 mg/m <sup>3</sup>	
		500 ppm	

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon Dioxide (CAS 124-38-9)	STEL	30000 ppm	
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5000 ppm	Inhalable fraction.
	TWA	5 mg/m <sup>3</sup>	
Kerosine (petroleum) (CAS 8008-20-6)	TWA	200 mg/m <sup>3</sup>	Non-aerosol.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m <sup>3</sup>	
		30000 ppm	
		9000 mg/m <sup>3</sup>	
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	Ceiling	5000 ppm	Mist.
		1800 mg/m <sup>3</sup>	
Kerosine (petroleum) (CAS 8008-20-6)	STEL	10 mg/m <sup>3</sup>	
	TWA	100 mg/m <sup>3</sup>	

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Exposure guidelines

#### US ACGIH Threshold Limit Values: Skin designation

Kerosine (petroleum) (CAS 8008-20-6)

Can be absorbed through the skin.

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. 607

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**Other** Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties**

**Appearance** Clear. Liquid.

**Physical state** Liquid.

**Form** Aerosol.

**Color** Yellow

**Odor** Petroleum

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 347 °F (175 °C) estimated

**Flash point** 120.0 °F (48.9 °C) estimated

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 0.7 % estimated

**Flammability limit - upper (%)** 5 % estimated

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** 0.64 hPa estimated

**Vapor density** Not available.

**Relative density** Not available.

**Solubility(ies)**

**Solubility (water)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** 410 °F (210 °C) estimated

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Other information**

**Density** 7.17 lbs/gal

**Explosive properties** Not explosive.

**Flame extension** < 29 in

**Flammability (flash back)** No

<b>Flammability class</b>	Combustible II estimated
<b>Heat of combustion (NFPA 30B)</b>	34 kJ/g estimated
<b>Oxidizing properties</b>	Not oxidizing.
<b>Specific gravity</b>	0.86
<b>VOC (Weight %)</b>	< 23 % w/w

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Headache. Nausea, vomiting. Diarrhea. Skin irritation. May cause redness and pain.

### Information on toxicological effects

<b>Acute toxicity</b>	Not available.
<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** May cause cancer.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### US. National Toxicology Program (NTP) Report on Carcinogens

Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5) Known To Be Human Carcinogen.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.



<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### 14. Transport information

#### DOT

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Consumer Commodity
<b>Transport hazard class(es)</b>	
<b>Class</b>	ORM-D
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	N82
<b>Packaging exceptions</b>	306
<b>Packaging non bulk</b>	None
<b>Packaging bulk</b>	None

#### IATA

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	10L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed.
<b>Cargo aircraft only</b>	Allowed.

#### IMDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS
<b>Transport hazard class(es)</b>	
<b>Class</b>	2
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-D, S-U
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.



## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
 Delayed Hazard - Yes  
 Fire Hazard - Yes  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)  
 Kerosine (petroleum) (CAS 8008-20-6)

**US. Massachusetts RTK - Substance List**

Carbon Dioxide (CAS 124-38-9)  
 Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)  
 Kerosine (petroleum) (CAS 8008-20-6)

**US. New Jersey Worker and Community Right-to-Know Act**

Carbon Dioxide (CAS 124-38-9)  
 Kerosine (petroleum) (CAS 8008-20-6)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Carbon Dioxide (CAS 124-38-9)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 05-15-2015

**Version #** 01

**Disclaimer** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



## Safety Data Sheet

SDS ID: Stock Code TF

Revision date: April 27, 2017

### Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product name:** "Select-Unyte" Thread Sealing Compound with PTFE.

**Synonyms:** None

**Chemical family:** Pipe Thread Hydrocarbon Mixture

**Producer:** J.C. Whitlam Manufacturing Company

200 West Walnut Street

P.O. Box 380

Wadsworth, Ohio 44282-0380

[www.icwhitlam.com](http://www.icwhitlam.com)

**Telephone:** 330-334-2524 Available during normal business hours

**Emergency:** CHEMTEL 800-255-3924 Available 24 hours

### Section 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Harmful if swallowed. Prolonged or repeated skin contact may cause drying, cracking, or irritation. High vapor concentrations may cause drowsiness and result in irritation of the eyes, nose, and throat and central nervous system (CNS) depression.

#### GHS Hazard and precautionary statements

**WARNING** — Serious Eye Irritation (category 2A), H319  
 Skin Irritation (category 2), H315  
 Acute oral toxicity (category 4), H302  
 Acute inhalation toxicity (category 4), H332  
 May cause drowsiness or dizziness (category 3), H336



#### Precautionary Statements

P264: Wash skin thoroughly after handling. P280: Wear protective gloves and eye protection.  
 P303 + P361: IF ON SKIN, immediately remove all contaminated clothing and wash before reuse. P305 + P351: IF IN EYES, Remove contact lenses if present and easy to do so, rinse with water for several minutes. P337 + P313: If eye or skin irritation persists – get medical advice/attention. P403 + P223: Store in a cool, well-ventilated place. Keep container tightly closed.

**Inhalation:** May cause irritation to mucous membranes and upper respiratory tract. In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, central nervous system depression, fatigue, dizziness, and nausea. Severe overexposure may cause red blood cell damage.

**Chronic:** Repeated or prolonged exposure may result in blood, liver, or kidney damage. See Section 11 (Toxicological Information) for additional information.

**Ingestion:** May cause irritation of the digestive tract, stomach pain, nausea, and vomiting.

**Skin contact:** May be absorbed through the skin during prolonged or repeated contact, causing irritation, dermatitis, weakness, headache and nausea.

**Eye contact:** Exposure to vapors or liquid may cause eye irritation.

**Carcinogenic** The IARC and ACGIH designate Ethylene glycol butyl ether (2-Butoxyethanol) and Isopropyl alcohol (2-Propanol) as category 3 – confirmed animal carcinogen with unknown relevance to humans. The ACGIH designates Ethylene glycol butyl ether (2-Butoxyethanol) as category A3– confirmed animal carcinogen with unknown relevance to humans.

### Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Material information:

Name	CAS No.	Weight %
Ethylene glycol butyl ether Synonym: 2-Butoxyethanol	111-76-2	12-17
Isopropyl alcohol Synonym: 2-Propanol	67-63-0	10-15

*\*Note: The above weight percentages are represented in ranges as estimates. Due to variation among production batches, component percentages may vary.*

### Section 4. FIRST AID MEASURES

**Inhalation:** Move exposed persons to fresh air. If the person is not breathing or breathing is irregular, provide artificial respiration or oxygen by trained personnel. Seek medical attention.

**Skin contact:** Quickly remove contaminated clothing and shoes. Wash affected skin with soap and water. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.

**Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. If conscious and alert, rinse the mouth with water. Call a physician or poison control center immediately.

**Eye contact:** Check for and remove any contact lenses. Immediately consult physician after flushing eyes with tepid water for 15 minutes.

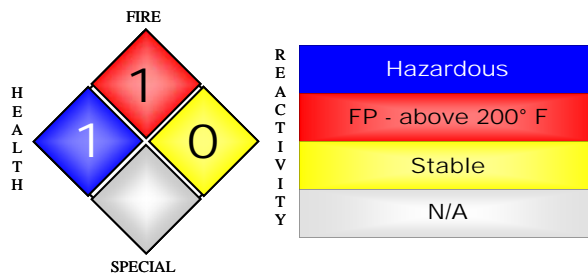
### Section 5. FIREFIGHTING MEASURES

**Suitable extinguishing media:** Small fires — Class B fire-extinguishing media including water spray, foam, CO<sub>2</sub> or dry powder. Do not use a water stream, as this will spread the fire.

**Specific hazards:** Fire or intense heat may cause violent rupture of product containers. Vapors may form explosive mixtures with air. Application of extinguishing media to hot surfaces requires special precautions. During emergency conditions, overexposure to decomposition products including carbon oxides may cause a health hazard. Symptoms may not be immediately apparent.

**Special protective equipment for firefighters:** Full protective equipment including self-contained breathing apparatus should be used. Do not allow run-off from fire-fighting to enter drains or water courses.

NFPA rating: HMIS rating:		
Health:	1	1
Flammability:	1	1
Instability/reactivity:	0	0
Other:	N/A	H (PPE)



## Section 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Immediately contact emergency personnel. Evacuate any potentially affected area and isolate personnel from entry. Ventilate closed spaces before entering them. Vapor can collect in lower areas.
<b>Large Spill:</b>	Personnel must have appropriate training, per Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment (Section 8).
<b>Methods for Containment and Clean up</b>	Shut off source if possible and if safe. Eliminate all ignition sources. Prevent entry into waterways, sewers, basements or confined areas. Advise applicable authorities if material has entered sewers or water courses.

## Section 7. HANDLING AND STORAGE

<b>Handling:</b>	Use with adequate ventilation. Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Avoid breathing vapors. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Launder soiled clothing thoroughly before re-use.
<b>Storage:</b>	Keep all containers tightly closed when not in use. Store out of direct sunlight and on an impermeable floor. Do not store with incompatible materials. See Section 10, Stability and Reactivity.

## Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Occupational Exposure Limits:

Name	CAS No.	ACGIH® TLV® Exposure Limits:	Federal OSHA PELs	OSHA PELs 1989 <sup>c</sup>
Ethylene glycol butyl ether Synonym: 2-Butoxyethanol	111-76-2	20 ppm <sup>A</sup>	50 ppm <sup>A</sup>	25 ppm <sup>A</sup>
Isopropyl alcohol Synonym: 2-Propanol	67-63-0	200 ppm <sup>A</sup> 400 ppm <sup>B</sup>	400 ppm <sup>A</sup>	400 ppm <sup>A</sup> 500 ppm <sup>B</sup>

All exposure limits listed are 8-hour time weighted average (TWA) — except where noted otherwise.

<sup>A</sup> Time Weighted Average (TWA) is an average exposure over the course of an 8-hour work shift.

<sup>B</sup> A Short Term Exposure Limit TWA over the course of 15 minutes.

PEL — Permissible Exposure Limit is the maximum 8-hour TWA concentration of a chemical that a worker may be exposed to under Occupational Safety and Health Administration (OSHA) regulations.

<sup>C</sup> Federal OSHA 1989 PELs were vacated but are in use and enforced by many state OSHA plans.

**Engineering measures:** Local exhaust ventilation is preferable. General ventilation is acceptable if exposure to materials in this section is maintained below applicable exposure limits.

## PERSONAL PROTECTIVE EQUIPMENT

- Respiratory protection:** When engineering controls are not sufficient to reduce exposure to levels below applicable exposure limits, seek professional advice prior to respirator selection and use. For concentrations less than 10 times the exposure limits, wear a properly fitted NIOSH/ MSHA-approved respirator with organic vapor cartridges.
- Skin and body protection:** Wear impervious clothing and gloves to prevent contact. Use the manufacturer's degradation and permeation data for protective material selection.
- Eye protection:** Wear safety spectacles with unperforated sideshields, or goggles.
- Hygiene measures:** Avoid repeated or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove contaminated clothing and launder before reuse.
- Other precautions:** Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	White paste
<b>Physical state (solid/liquid/gas):</b>	Paste
<b>Substance type (pure/mixture):</b>	Mixture
<b>Color:</b>	White
<b>Odor:</b>	Mild odor
<b>Molecular weight:</b>	Not Available
<b>pH:</b>	Not Applicable
<b>Boiling point/range (5-95%):</b>	Not Available
<b>Melting point/range:</b>	Not Available
<b>Decomposition temperature:</b>	Not Available
<b>Specific gravity:</b>	1.41
<b>Vapor density:</b>	(AIR = 1) <1
<b>Vapor pressure:</b>	0.88 mm Hg at 68°F
<b>Evaporation rate (Butyl acetate= 1):</b>	0.6
<b>Flash point, method used:</b>	Above 200 °F; UN test N.1
<b>Water solubility:</b>	Slight
<b>VOC Content:</b>	310 grams/liter (SCAQMD Rule 1168 Test Method316A)
<b>Auto-ignition temperature:</b>	921°F; 494°C
<b>Flammable limits in air — lower (%):</b>	1.1
<b>Flammable limits in air — upper (%):</b>	12.7

## Section 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Stability:</b>	Stable under recommended storage conditions.
<b>Possibly hazardous reactions:</b>	Vapors may form an explosive mixture with air
<b>Conditions to avoid:</b>	Heat, flames, sparks, temperature extremes, and direct sunlight.
<b>Incompatible Materials:</b>	Strong oxides, chlorine, acids, alkalies, peroxides.
<b>Hazardous decomposition products:</b>	By fire, Carbon dioxide, Carbon monoxide
<b>Polymerization:</b>	Will not occur.

## Section 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:** Excessive exposure leads to depression of the central nervous system. Causes eye irritation, moderate skin irritation.

### Product information:

Name	CAS No.	Inhalation:	Dermal:	Oral:
Ethylene glycol butyl ether Synonym: 2-Butoxyethanol	111-76-2	LC <sub>50</sub> (Rat): ~700 ppm, 7 hours; LC <sub>50</sub> (Guinea pig): ~932 ppm, 4 hours;	LD <sub>50</sub> (Rat) >2,000 mg/kg LD <sub>50</sub> (Guinea pig) >2,000 mg/kg	Acute LD <sub>50</sub> (Rat):1,746 mg/kg Acute LD <sub>50</sub> (Guinea pig):1,414 mg/kg
Isopropyl alcohol Synonym: 2-Propanol	67-63-0	LC <sub>50</sub> (Rat): 16,000 ppm, 8 hours	LD <sub>50</sub> (Rabbit) 12,800 mg/kg	LD <sub>50</sub> (Rat) 5,000 to 5,045 mg/kg

LC<sub>50</sub> — The concentration of the chemical in air that kills 50% of the test animals in a given time (usually four hours).

**Chronic toxicity:** The IARC and ACGIH designates Ethylene glycol butyl ether (2-Butoxyethanol) and Isopropyl alcohol (2-Propanol) as category 3 – confirmed animal carcinogen with unknown relevance to humans. Repeated or prolonged exposure in excess of exposure limits in Section 8 may cause damage to the lungs, liver, blood, and kidney.

**Sensitization:** Not known to cause sensitization in humans.

## Section 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects:** LC<sub>50</sub> Harlequinfish, Red rasbora 96-hour 4,200 mg/l.  
LC<sub>50</sub> Fathead minnow 96-hour 9,640 to 10,000 mg/l.  
EC<sub>50</sub> Water flea 48-hour 1,550 mg/l.

**Persistence** The estimated half-life (2-Butoxyethanol) in groundwater ranges from 14 days to 8 weeks; and in soil 7 days to 4 weeks.

**Degradability:** Expected to be readily biodegradable.

## Section 13. DISPOSAL CONSIDERATIONS

**Cleanup considerations:** This product is not a hazardous waste as defined under RCRA 40 CFR 261. Do not incinerate a closed container. Disposal of this material must be done in accordance with federal, state and/or local regulations. The material destined for disposal must be characterized properly and may differ from the product described in this SDS if mixed with other wastes.

## Section 14. TRANSPORT INFORMATION

Please refer to DOT regulation 49 CFR 172.101:

**Transport information:** This material is not regulated under DOT when transported via U.S. commerce routes; and IATA, and IMO via international routes

**Hazardous Materials Description:** (DOT and IATA):

**UN/identification no.:** Not Applicable  
**Proper shipping name:** Not Applicable  
**Hazard class:** Not Applicable  
**Packing group:** Not Applicable  
**DOT reportable quantity (lbs.):** Not Applicable



## Section 15. REGULATORY INFORMATION

### U.S. federal regulatory information:

#### U.S. RCRA (40 CFR 261)

This product is not a hazardous waste as defined under RCRA 40 CFR 261.

### State and community right-to-know regulations:

*The following component(s) of this material are identified on the regulatory lists below:*

#### U.S. TSCA Chemical inventory Section 8(b)

**OSHA** — This product is determined to be hazardous as defined in the OSHA Hazard Communications Standard (29 CFR 1910.1200)

#### CERCLA Sections 102a/103 (40 FR 302.4):

No ingredients are listed.

Some Components of this product are listed in the following sections of **SARA**:

SARA Title III Section 302 — N/A

SARA Title III Section 304 — N/A

SARA Title III Section 313 — Ethylene glycol butyl ether (2-Butoxyethanol) 1% reporting threshold

Isopropyl alcohol (2-Propanol) 100 % reporting threshold

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21)

Acute health hazard: Yes

Chronic health hazard: Yes

Fire hazard: No

Reactive Hazard: No

Pressure Hazard: No

#### California Proposition 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

#### WHMIS (Canada)

Class D-2B: Material causing other toxic effects

***NOTE:** User must consult with applicable state and local agencies for special specifics, determinations or compliance obligations regarding this product.*

## Section 16. OTHER INFORMATION

### Standards and Certification Listings:

The information and recommendations contained herein are based upon tests, data, and information resources believed to be reliable. However, the J.C. Whitlam Manufacturing Company, Inc., and its related operations or divisions (Whitlam) do not guarantee the accuracy or completeness, nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of goods, the merchantability of the goods or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage may be required. Whitlam assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of this data. No warranty against infringement of any patent, copyright or trademark is made or implied.



# SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Clorox Commercial Solutions® Tilex® Disinfects Instant Mold & Mildew Remover

### Other means of identification

**EPA Registration Number** 5813-24-67619

### Recommended use of the chemical and restrictions on use

**Recommended use** Mold and mildew remover spray

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Supplier Address**

The Clorox Company  
1221 Broadway, Oakland, CA 94612  
USA  
Phone: 1-510-271-7000

### Emergency telephone number

**Emergency Phone Numbers** For Medical Emergencies, call: 1-800-446-1014  
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

## 2. HAZARDS IDENTIFICATION


### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2A

**GHS Label elements, including precautionary statements**

**Emergency Overview**

<b>Signal word</b>	<b>Warning</b>	
<b>Hazard Statements</b> Causes mild skin irritation Causes serious eye irritation		
		
<b>Appearance</b> Clear, pale yellow	<b>Physical State</b> Liquid	<b>Odor</b> Herbaceous, marine, bleach

**Precautionary Statements - Prevention**

Wash hands and any exposed skin thoroughly after handling.  
Wear eye protection/face protection such as safety glasses.

**Precautionary Statements - Response**

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin**

If skin irritation occurs: Get medical advice/attention.

**Precautionary Statements - Storage**

None

**Precautionary Statements - Disposal**

None

**Hazards not otherwise classified (HNOC)**

The following medical conditions may be aggravated by exposure to high concentrations of vapor or mist: heart conditions or chronic respiratory problems such as asthma, emphysema, or obstructive lung disease.

**Unknown Toxicity**

0.085% of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

Toxic to aquatic life with long lasting effects  
Very toxic to aquatic life

**Interactions with Other Chemicals**

Reacts with other household chemicals such as products containing ammonia, toilet bowl cleaners, rust removers, vinegar, or acids to produce hazardous gases, such as chlorine and other chlorinated compounds.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %	Trade Secret
Sodium hypochlorite	7681-52-9	1 - 5	
Sodium hydroxide	1310-73-2	0.1 - 1	

The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES**

**First aid measures**

- General Advice** Show this safety data sheet to the doctor in attendance.
- Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
- Skin Contact** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. If irritation develops, call a doctor.
- Inhalation** Move to fresh air. If breathing is affected, call a doctor.
- Ingestion** Call a poison control center or doctor immediately. Have person sip a glassful of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor.
- Protection of First-aiders** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

- Most Important Symptoms and Effects** Stinging and irritation of eyes.

**Indication of any immediate medical attention and special treatment needed**

- Notes to Physician** Treat symptomatically.

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## 5. FIRE-FIGHTING MEASURES

### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### **Unsuitable Extinguishing Media**

CAUTION: Use of water spray when fighting fire may be inefficient.

### **Specific Hazards Arising from the Chemical**

No information available.

### **Explosion Data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### **Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

---

## 6. ACCIDENTAL RELEASE MEASURES

### **Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Avoid contact with eyes, skin, and clothing. Use personal protective equipment as required.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

### **Environmental precautions**

**Environmental Precautions** See Section 12 for ecological Information.

### **Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Products** Products containing ammonia, toilet bowl cleaners, rust removers, vinegar, or acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>

*ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.*

### Appropriate engineering controls

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** If splashes are likely to occur: Wear safety glasses with side shields (or goggles). None required for consumer use.

**Skin and Body Protection** Wear protective gloves and protective clothing.

**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

<b>Physical State</b> <b>Appearance</b> <b>Color</b>	Liquid Clear Pale yellow	<b>Odor</b> <b>Odor Threshold</b>	Herbaceous, marine, bleach No information available
--	--------------------------------	--------------------------------------	--

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
pH	12.4 - 12.8	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	Not flammable	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	1.04	None known
Water Solubility	Soluble in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

### Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

Reacts with other household chemicals such as products containing ammonia, toilet bowl cleaners, rust removers, vinegar, or acids to produce hazardous gases, such as chlorine and other chlorinated compounds.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

None known based on information supplied.

### Incompatible materials

Products containing ammonia, toilet bowl cleaners, rust removers, vinegar, or acids.

### Hazardous Decomposition Products

None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

- Inhalation** Exposure to vapor or mist may irritate respiratory tract.
- Eye Contact** May cause eye irritation.
- Skin Contact** Prolonged contact may cause irritation.
- Ingestion** Ingestion may cause irritation to mucous membranes and gastrointestinal tract, nausea, vomiting, and diarrhea.

**Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	10000 mg/kg (Rabbit)	-
Sodium hydroxide 1310-73-2	-	1350 mg/kg (Rabbit)	-

**Information on toxicological effects**

**Symptoms** May cause redness and tearing of the eyes.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

- Sensitization** No information available.
- Mutagenic Effects** No information available.
- Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

*IARC (International Agency for Research on Cancer)  
Group 3 - Not Classifiable as to Carcinogenicity in Humans*

- Reproductive Toxicity** No information available.
- STOT - single exposure** No information available.
- STOT - repeated exposure** No information available.
- Chronic Toxicity** Carcinogenic potential is unknown.
- Target Organ Effects** Respiratory system, eyes, skin, gastrointestinal tract (GI).
- Aspiration Hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document  
Not applicable



## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

### Persistence and Degradability

No information available.

### Bioaccumulation

No information available.

### Other adverse effects

No information available.

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

### Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

## 14. TRANSPORT INFORMATION

### DOT

NOT REGULATED

### TDG

<b>UN-No</b>	UN3082
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT

### ICAO

<b>UN-No</b>	UN3082
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

### IATA

<b>UN-No</b>	UN3082
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

**IMDG/IMO**

**UN-No** UN3082  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard Class** 9  
**Packing Group** III  
**EmS No.** F-A, S-F  
**Marine Pollutant** Product is a marine pollutant according to the criteria set by IMDG/IMO  
**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT

**15. REGULATORY INFORMATION**

**Chemical Inventories**

**TSCA** All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.  
**DSL/NDSL** All components are on the DSL or NDSL.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

**Acute Health Hazard** Yes  
**Chronic Health Hazard** No  
**Fire Hazard** No  
**Sudden Release of Pressure Hazard** No  
**Reactive Hazard** No

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb			
Sodium hydroxide 1310-73-2	1000 lb			

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**WARNING:** Causes substantial but temporary eye injury and can irritate skin. For sensitive skin or prolonged use, wear gloves. Do not get in eyes or on clothing. Vapors may irritate. Use only in well-ventilated areas. Avoid prolonged breathing of vapors. **Not recommended for use by persons with heart conditions or chronic respiratory problems such as asthma, emphysema or obstructive lung disease.** Due to irritating nature, may be harmful if swallowed.

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9					
Sodium hydroxide 1310-73-2					

**International Regulations**

**Canada**

**WHMIS Hazard Class**

D2B - Toxic materials



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## 16. OTHER INFORMATION

**NFPA**    Health Hazard 2    Flammability 0    Instability 0    Physical and Chemical Hazards -

**HMIS**    Health Hazard 2    Flammability 0    Physical Hazard 0    Personal Protection

**Prepared By**                      Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

**Revision Date**                      New

**Revision Note**                      New

**Reference**                              1101803/50049006.004

**General Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



# SAFETY DATA SHEET

**Issuing Date** January 5, 2015

**Revision Date** March 19, 2016

**Revision Number** 2

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Clorox Commercial Solutions® Clorox® Toilet Bowl Cleaner with Bleach<sub>1</sub>

### Other means of identification

**EPA Registration Number** 67619-16

### Recommended use of the chemical and restrictions on use

**Recommended use** Disinfecting toilet bowl cleaner with bleach

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Clorox Professional Products Company  
1221 Broadway  
Oakland, CA 94612

Phone: 1-510-271-7000

### Emergency telephone number


**Emergency Phone Numbers** For Medical Emergencies, call: 1-800-446-1014  
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

**2. HAZARDS IDENTIFICATION****Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

**GHS Label elements, including precautionary statements****Emergency Overview**

<b>Signal word</b>	<b>Danger</b>		
<b>Hazard Statements</b>	Causes severe skin burns and eye damage Causes serious eye damage		
			
<b>Appearance</b>	Clear, green	<b>Physical State</b>	Viscous liquid
		<b>Odor</b>	Crisp, green, floral, bleach

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling.

Wear protective gloves, protective clothing, face protection, and eye protection such as safety glasses.

**Precautionary Statements - Response**

Immediately call a poison center or doctor.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Wash contaminated clothing before reuse.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Specific treatment (see supplemental first aid instructions on this label).

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents in accordance with all applicable federal, state, and local regulations.

**Hazards not otherwise classified (HNOC)**

Although not expected, heart conditions or chronic respiratory problems such as asthma, chronic bronchitis, or obstructive lung disease may be aggravated by exposure to high concentrations of vapor or mist.

**Unknown Toxicity**

0.11% of the mixture consists of ingredient(s) of unknown toxicity.

**Other information**

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

**Interactions with Other Chemicals**

Reacts with other household chemicals such as other toilet bowl cleaners, rust removers, acids, or products containing ammonia to produce hazardous irritating gases, such as chlorine and other chlorinated compounds.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Sodium hypochlorite	7681-52-9	1 - 5	*
Sodium cocoate	67701-10-4	0.5 - 1.5	*
Sodium hydroxide	1310-73-2	0.1 - 1	*
Myristamine oxide	3332-27-2	0.1 - 1	*
Lauramine oxide	1643-20-5	0.1 - 1	*

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

**First aid measures****General Advice**

Call a poison control center or doctor immediately for treatment advice. Show this safety data sheet to the doctor in attendance.

**Eye Contact**

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**Skin Contact**

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**Inhalation**

Move to fresh air. If breathing is affected, call a doctor.

**Ingestion**

Call a poison control center or doctor immediately for treatment advice. Have person sip a glassful of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Protection of First-aiders**

Avoid contact with skin, eyes, and clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed****Most Important Symptoms and Effects**

Burning of eyes and skin.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician**

Treat symptomatically. Use of gastric lavage or emesis is contraindicated.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

### Specific Hazards Arising from the Chemical

This product causes burns to eyes, skin, and mucous membranes. Thermal decomposition can release sodium chlorate and irritating gases and vapors.

### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Use personal protective equipment as required. For spills of multiple products, responders should evaluate the MSDSs of the products for incompatibility with sodium hypochlorite. Breathing protection should be worn in enclosed and/or poorly-ventilated areas until hazard assessment is complete.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental Precautions** See Section 12 for ecological Information.

### Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product.

### Conditions for safe storage, including any incompatibilities

**Storage** Store in a location inaccessible to children. Tightly close cap between uses.

**Incompatible Products** Other toilet bowl cleaners, rust removers, acids, or products containing ammonia.



**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>
Sodium hypochlorite 7681-52-9	None	None	None
Sodium cocoate 67701-10-4	None	None	None
Myristamine oxide 3332-27-2	None	None	None
Lauramine oxide 1643-20-5	None	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

**Appropriate engineering controls**

**Engineering Measures**                      Showers  
   Eyewash stations  
   Ventilation systems

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection**                      If splashes are likely to occur: Wear safety glasses with side shields (or goggles) or face shield.

**Skin and Body Protection**                      Wear rubber or neoprene gloves and protective clothing such as long-sleeved shirt.

**Respiratory Protection**                      If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures**                              Wash hands after direct contact. Do not wear product-contaminated clothing for prolonged periods. Remove and wash contaminated clothing before re-use. Do not eat, drink, or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

<b>Physical State</b>	Viscous liquid	<b>Odor</b>	Crisp, green, floral, bleach
<b>Appearance</b>	Clear	<b>Odor Threshold</b>	No information available
<b>Color</b>	Green		

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
pH	12.5 - 13.5	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	Not flammable	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.05	None known
Water Solubility	Soluble in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	~1000 cP	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

### Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

Reacts with other household chemicals such as other toilet bowl cleaners, rust removers, acids, or products containing ammonia to produce hazardous irritating gases, such as chlorine and other chlorinated compounds.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

None known based on information supplied.

### Incompatible materials

Other toilet bowl cleaners, rust removers, acids, or products containing ammonia.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Exposure to vapor or mist may irritate respiratory tract and cause coughing. Inhalation of high concentrations may cause pulmonary edema.
<b>Eye Contact</b>	Corrosive. May cause severe damage to eyes.
<b>Skin Contact</b>	May cause severe irritation to skin. Prolonged contact may cause burns to skin.
<b>Ingestion</b>	Ingestion may cause burns to gastrointestinal tract and respiratory tract, nausea, vomiting, and diarrhea.

#### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	>10000 mg/kg (Rabbit)	-
Sodium hydroxide 1310-73-2	-	1350 mg/kg (Rabbit)	-

### Information on toxicological effects

<b>Symptoms</b>	May cause redness and tearing of the eyes. May cause burns to eyes. May cause redness or burns to skin. Inhalation may cause coughing.
-----------------	--

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	No information available.
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

*IARC (International Agency for Research on Cancer)  
Group 3 - Not Classifiable as to Carcinogenicity in Humans*

<b>Reproductive Toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Chronic Toxicity</b>	Carcinogenic potential is unknown.
<b>Target Organ Effects</b>	Respiratory system, eyes, skin, gastrointestinal tract (GI).
<b>Aspiration Hazard</b>	No information available.

### Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document  
No information available.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

**Persistence and Degradability**

No information available.

**Bioaccumulation**

No information available.

**Other adverse effects**

No information available.

**13. DISPOSAL CONSIDERATIONS****Disposal methods**

Dispose of in accordance with all applicable federal, state, and local regulations.

**Contaminated Packaging**

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

**14. TRANSPORT INFORMATION****DOT**

LIMITED QUANTITY.

**TDG**

<b>UN-No</b>	UN1760
<b>Proper Shipping Name</b>	CORROSIVE LIQUID, N.O.S.
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Description</b>	UN1760, CORROSIVE LIQUID, N.O.S. (SODIUM HYPOCHLORITE, SODIUM HYDROXIDE), 8, II

**ICAO**

<b>UN-No</b>	UN1760
<b>Proper Shipping Name</b>	CORROSIVE LIQUID, N.O.S.
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Description</b>	UN1760, CORROSIVE LIQUID, N.O.S. (SODIUM HYPOCHLORITE, SODIUM HYDROXIDE), 8, II

**IATA**

<b>UN-No</b>	UN1760
<b>Proper Shipping Name</b>	CORROSIVE LIQUID, N.O.S.
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Description</b>	UN1760, CORROSIVE LIQUID, N.O.S. (SODIUM HYPOCHLORITE, SODIUM HYDROXIDE), 8, II

**IMDG/IMO**

<b>UN-No</b>	UN1760
<b>Proper Shipping Name</b>	CORROSIVE LIQUID, N.O.S.
<b>Hazard Class</b>	UN1760
<b>Packing Group</b>	CORROSIVE LIQUID, N.O.S.
<b>EmS No.</b>	F-A, S-B
<b>Marine Pollutant</b>	Marine Pollutant exception per IMDG Code 2.10.2.7
<b>Description</b>	UN1760, CORROSIVE LIQUID, N.O.S. (SODIUM HYPOCHLORITE, SODIUM HYDROXIDE), 8, II

**15. REGULATORY INFORMATION**

**Chemical Inventories**

**TSCA** All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.

**DSL/NDSL** All components are on the DSL or NDSL.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb			X
Sodium hydroxide 1310-73-2	1000 lb			X

**CERCLA**

This material, as supplied, contains the following substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**DANGER: CORROSIVE.** Causes irreversible eye damage. Causes skin irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not get in eyes, on skin, or on clothing. For prolonged use, wear gloves. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse. Use only in well-ventilated areas.

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9	X	X	X	X	
Sodium hydroxide 1310-73-2	X	X	X	X	

**International Regulations****Canada****WHMIS Hazard Class**

E - Corrosive material

**16. OTHER INFORMATION**

**NFPA** Health Hazard 3 Flammability 0 Instability 0 Physical and Chemical Hazards -

**HMIS** Health Hazard 3 Flammability 0 Physical Hazard 0 Personal Protection B

**Prepared By** Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

**Revision Date** March 19, 2016

**Revision Note** Revision Sections 3, 8.

**Reference** 1108907/50916001.002

**General Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



## Product Data Sheet for SCOTT® PERFORMANCE Toilet Tissue - Mini Jumbo / White /180 - 8522

## Product Information

<b>Product Long Code</b>	08522010
<b>Customer Facing Code</b>	8522
<b>Description</b>	SCOTT® PERFORMANCE Toilet Tissue - Mini Jumbo / White /180
<b>PDS Reference</b>	23/01/2018



## Packaging Configuration

<b>Case Contents</b>	12 Rolls x 474 Toilet Tissue Sheets = 5685 Toilet Tissue Sheets
<b>Outer Pack Material</b>	Plastic
<b>Commodity Code</b>	48181010

Icon	Unit	Dimension			Weight(kg)
	Roll	9.50	x 18.50	Height x Diameter(cm)	
	Toilet Tissue Sheet	38.00	x 9.50	Length x Width(cm)	

## Product Specifications

<b>Bleaching Method</b>	TotallyChlorine Free	<b>Core Size (cm)</b>	6
<b>Virgin Fibre(%)</b>	0	<b>Embossing/textured</b>	No
<b>Technology</b>	Light Dry Crepe (LDC)	<b>Water Breakup Value (Inversions)</b>	6
<b>Roll Type</b>	Jumbo Roll	<b>Plies</b>	2
<b>Perforated</b>	Yes	<b>Bar Code (Case)</b>	05027375007361
<b>Recycled Fibre(%)</b>	100	<b>Colour</b>	White
<b>Basis Weight (g/m2)</b>	31	<b>Brightness(%)</b>	75
<b>Machine Direction (MD) Tensile (N/m/ply)</b>	270	<b>Cross Direction (CD) Tensile (N/m/ply)</b>	125

# Product Data Sheet for SCOTT® PERFORMANCE Toilet Tissue - Mini Jumbo / White /180 - 8522

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## International Standards and Symbols

### Solution

#### Healthier Workplace

The HEALTHY WORKPLACE PROJECT\* is a comprehensive office hygiene programme which helps engage employees and reduce sickness.



### Trade

#### ISO 14001

ISO 14001 is an international environmental standard. Designed to help organisations ensure that operations comply with environmental laws, and; major environmental risks and liabilities are properly identified, minimised and managed.

ISO 14001:2004



#### ISO 9001

This gives the requirements for quality management systems, is now firmly established as the globally implemented standard for providing assurance about the ability to satisfy quality requirements and to enhance customer satisfaction in supplier-customer relationships.



#### Regulation (EC) No 66/2010 of the European Parliament

The European Ecolabel scheme encourages businesses to market products and services that are kinder to the environment. Only products that meet strict environmental standards are entitled to use the Ecolabel accreditation.



### Packaging

<b>Unit Of Sale</b>	Case	<b>Net Weight(kg)</b>	6.361
<b>Max Weight(kg)</b>	7.25	<b>Case Dimension (LXWXH)(cm)</b>	55.5 x 37 x 19
<b>Full Pallet</b>	Yes		

Pallet Type	LxWxH (m)	Cases per Layer	Layers per Pallet	Cases per Pallet
A2	1.20 x 1.00 x 1.29	5	6	30

### Related Products

Product Code	Description	Recommendation
	Fits Dispenser	
6947	AQUARIUS* Toilet Tissue Dispenser - Twin Mini Jumbo / White	✓
7184	AQUARIUS* Toilet Tissue Dispenser - Jumbo Non-Stop / Black	
6958	AQUARIUS* Toilet Tissue Dispenser - Single Mini Jumbo / White	
8974	KIMBERLY-CLARK PROFESSIONAL* Toilet Tissue Dispenser - Mini Jumbo / Stainless steel	

### Batch Code





# Product Data Sheet for SCOTT® PERFORMANCE Toilet Tissue - Mini Jumbo / White /180 - 8522

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## Information

It is the employer's responsibility to assess the risk of the task to be undertaken and determine the correct choice of wipers for the task. The manufacturer, Kimberly-Clark, does not accept any responsibility for the incorrect choice or misuse of wipers shown in this brochure. All care has been taken to ensure that the information contained herein is as accurate as possible at the time of publication, however errors may occur and legislation concerning personal protective equipment is under constant review and may change in the lifetime of this brochure. Accordingly, the specifications for the products may be subject to change. We would advise you to contact INFOFAX if you have any queries concerning the products shown or the suitability of such products for the particular task. Always dispose of used protective equipment in a safe and appropriate manner in accordance with European, National and Local environmental regulations

<b>Websites</b>	<a href="http://www.kcprofessional.co.uk">www.kcprofessional.co.uk</a>	<b>Infofax Details</b>	<a href="mailto:infofax@kcc.com">infofax@kcc.com</a>
<b>Customer Service Number</b>	For more information please contact Customer Service during regular office hours-0870 551 044		
<b>Country of Origin</b>	GERMANY		



# Carbon and Low Alloy Steel Pipe and Tube Safety Data Sheet (SDS)

## Safety Data Sheet (SDS)

### Section 1 – Identification

**1(a) Product Identifier Used on Label: Carbon and Low Alloy Steel Pipe and Tube**

**1(b) Other Means of Identification:** Casing, Line Pipe, or Coupling Stock. See section 16 for other synonyms.

**1(c) Recommended Use of the Chemical and Restrictions on Use:** None

**1(d) Name, Address, and Telephone Number:**

Vallourec Star Phone number: 330-742-6300  
2669 Martin Luther King Jr Blvd  
Youngstown, Ohio 44510

**1(e) Emergency Phone Number: 330-742-6300**

### Section 2 – Hazard(s) Identification

**2(a) Classification of the chemical: Carbon and Low Alloy Steel Pipe and Tube** is considered an article under Reach regulation (REACH REGULATION (EC) No 1907/2006) and is not subject to classification under CLP regulation (REGULATION (EC) No 1272/2008). However, **Carbon and Low Alloy Steel Pipe and Tube** is not exempt as an article under OSHA's Hazard Communication Standard (29 CFR 1910.1200) due to its downstream use, thus this product is considered a mixture and a hazardous material. Therefore, the categories of Health Hazards as defined in "GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), Third revised edition ST/SG/AC.10/30/Rev. 3" United Nations, New York and Geneva, 2009 have been evaluated. Refer to Section 3, 8 and 11 for additional information.

**2(b) Signal word, hazard statement(s), symbols and precautionary statement(s):**

Hazard Symbol	Hazard Classification	Signal Word	Hazard Statement(s)
	Carcinogenicity - 2 Reproductive Toxicity - 2 Single Target Organ Toxicity (STOT) Repeat Exposure - 1	<b>Danger</b>	Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to lungs and central nervous system through prolonged or repeated inhalation exposure.
	Acute Toxicity-Oral - 4 Skin Sensitization - 1 STOT Single Exposure - 3		Harmful if swallowed. May cause an allergic skin reaction. Harmful in contact with skin.
NA	Eye Irritation - 2B		May cause respiratory irritation. Causes eye irritation.

**Precautionary Statement(s):**

Prevention	Response	Storage/Disposal
Do not breathe dusts / fume / gas / mist / vapor / spray. Wear protective gloves / protective clothing / eye protection / face protection. Contaminated work clothing must not be allowed out of the workplace. Use only outdoors or in well ventilated areas. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product.	If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed, concerned or feel unwell: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. If on skin: Wash with plenty of water. If irritation or rash occurs: Get medical advice/attention. Take off and wash contaminated clothing before reuse. Call a poison center/doctor if you feel unwell.	Dispose of contents in accordance with federal, state and local regulations.

**2(c) Hazards not otherwise classified:** None Known

**2(d) Unknown acute toxicity statement (mixture):** None Known

### Section 3 – Composition/Information on Ingredients

**3(a-c) Chemical name, common name (synonyms), CAS number and other identifiers, and concentration:**

Chemical Name	CAS Number	EC Number	% weight
Iron	7439-89-6	231-096-4	>50 - 99.9
Chromium	7440-47-3	231-157-5	0.0-1.5
Manganese	7439-96-5	231-105-1	0.0-2.0

### Section 3 – Composition/Information on Ingredients (continued)

**3(a-c) Chemical name, common name (synonyms), CAS number and other identifiers, and concentration (continued):**

Chemical Name	CAS Number	EC Number	% weight
Molybdenum	7439-98-7	231-107-2	0.0-1.5
Nickel	7440-02-0	231-111-4	0.0-1.0

EC - European Community

CAS - Chemical Abstract Service

- Commercial steel products contain small amounts of various elements in addition to those listed. These small quantities are frequently referred to as “trace” or “residual” elements that generally originate in the raw materials used. Steel products may contain the following trace or residual elements including typical percentages for the elements identified: aluminum ≤0.1%, carbon ≤0.5%, copper ≤0.5%, phosphorous ≤0.05%, silicon ≤0.5%, boron ≤0.01%, cobalt ≤0.01%, lead ≤0.01%, niobium (columbium) ≤0.01%, sulfur ≤0.05%, nitrogen ≤0.2%, titanium ≤0.2%, tellurium ≤0.01%, tungsten ≤0.05%, vanadium ≤0.10% and zirconium ≤0.05%
- Percentages are expressed as maximum concentrations of trace elements for the purpose of communicating the potential hazards of the finished product. Consult product specifications for specific composition information.
- Product surfaces may be treated with small amounts of corrosion-inhibiting oil that may contain mineral oil or petroleum distillates, or paints, epoxies, laminates, etc., generally applied at the customer’s request. Refer to the coating manufacturer’s MSDS for hazards associated with coatings. Refer to the following table for additional information.

**Metallic Coating (if applicable)<sup>1</sup>**

Chemical Name	CAS Number	EC Number	% weight <sup>2</sup>
Zinc	7440-66-6	231-175-3	0 - 85

**Other Coatings (if applicable)**

Non Metallic Coatings	Varies	231-111-4	<0.05 total
Stencil Ink	Varies	Varies	<0.05 total

1. Refer to product specifications for coating applicability.

2. Percentages are expressed as typical ranges or maximum concentrations of trace elements in the coating, for the purpose of communicating the potential hazards of the finished product. Consult product specifications for specific composition information.

### Section 4 – First-aid Measures

**4(a) Description of necessary measures:**

- **Inhalation: Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped is not a likely form of exposure. However during further processing (welding, grinding, burning, etc.), if inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed, concerned or feel unwell: Get medical advice/attention.
- **Eye Contact: Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped is not a likely form of exposure. However during further processing (welding, grinding, burning, etc.), if in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. If eye irritation persists: Get medical advice attention. If exposed, concerned or feel unwell: Get medical advice/attention.
- **Skin Contact:** If on skin: Wash thoroughly after handling.
- ng. Wash with plenty of water. If irritation or rash occurs: Get medical advice/attention. Take off and wash contaminated clothing before reuse. If exposed, concerned or feel unwell: Get medical advice/attention.
- **Ingestion: Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped is not a likely form of exposure. However during further processing (welding, grinding, burning, etc.), if swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If exposed, concerned or feel unwell: Get medical advice/attention.

**4(b) Most important symptoms/effects, acute and delayed (chronic):**

- **Inhalation: Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped is not likely to present an acute or chronic health effect.
- **Eye: Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped is not likely to present an acute or chronic health effect.
- **Skin: Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped is not likely to present an acute or chronic health effect.
- **Ingestion: Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped is not likely to present an acute or chronic health effect.

However during further processing (welding, grinding, burning, etc.) individual components may illicit an acute or chronic health effect. Refer to Section 11-Toxicological Information.

**4(c) Immediate Medical Attention and Special Treatment:** None Known

### Section 5 – Fire-fighting Measures

**5(a) Suitable (and unsuitable) Extinguishing Media:** Not Applicable for **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped. Use extinguishers appropriate for surrounding materials.

**5(b) Specific Hazards arising from the chemical:** Not Applicable for **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped. When burned, toxic smoke, fume and vapor may be emitted.

**Section 5 – Fire-fighting Measures (continued)**

**5(c) Special protective equipment and precautions for fire-fighters:** Self-contained NIOSH approved respiratory protection and full protective clothing should be worn when fumes and/or smoke from fire are present. Heat and flames cause emittance of acrid smoke and fumes. Do not release runoff from fire control methods to sewers or waterways. Firefighters should wear full face-piece self-contained breathing apparatus and chemical protective clothing with thermal protection. Direct water stream will scatter and spread flames and, therefore, should not be used.

**Section 6 - Accidental Release Measures**

**6(a) Personal Precautions, Protective Equipment and Emergency Procedures:** Not Applicable for **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped. For spills involving finely divided particles, clean-up personnel should be protected against contact with eyes and skin. If material is in a dry state, avoid inhalation of dust.

**6(b) Methods and materials for containment and clean up:** Not Applicable for **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped. Collect material in appropriate, labeled containers for recovery or disposal in accordance with federal, state, and local regulations. Follow applicable OSHA regulations (29 CFR 1910.120) and all other pertinent state and federal requirements

**Section 7 - Handling and Storage**

**7(a) Precautions for safe handling:** Not Applicable for **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped, however further processing (welding, burning, grinding, etc.) with the potential for generating high concentrations of airborne particulates should be evaluated and controlled as necessary. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in well ventilated areas. Practice good housekeeping. Avoid breathing metal fumes and/or dust. Do not eat, drink or smoke when using this product. Cut resistant gloves and sleeves should be worn when working with steel products. Use lifting and work devices, e.g., crane, hoist, etc., within rated capacities and in accordance with manufacturer’s instructions when handling these products.

**7(b) Conditions for safe storage, including any incompatibilities:** Store away from acids and incompatible materials.

**Section 8 - Exposure Controls / Personal Protection**

**8(a) Occupational Exposure Limits (OELs):** **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped in its physical form does not present an inhalation, ingestion or contact hazard, nor would any of the following exposure data apply. However, operations such as burning, welding (high temperature), sawing, brazing, machining, grinding, etc. may produce fumes and/or particulates. The following exposure limits are offered as reference for an experienced industrial hygienist to review.

Ingredients	OSHA PEL <sup>1</sup>	ACGIH TLV <sup>2</sup>	NIOSH REL <sup>3</sup>	IDLH <sup>4</sup>
Iron	10 mg/m <sup>3</sup> (as iron oxide fume)	5.0 mg/m <sup>3</sup> (as iron oxide dust and fume)	5.0 mg/m <sup>3</sup> (as iron oxide dust and fume)	2,500 mg Fe/m <sup>3</sup>
Chromium	0.5 mg/m <sup>3</sup> (as Cr II & III, inorganic compounds) 1.0 mg/m <sup>3</sup> (as Cr, metal) 0.005 mg/m <sup>3</sup> (as Cr VI, inorganic compounds & certain water insoluble) “AL” 0.0025 mg/m <sup>3</sup> (as Cr VI, inorganic compounds & certain water insoluble)	0.5 mg/m <sup>3</sup> (as Cr III, inorganic compounds) 0.5 mg/m <sup>3</sup> (as Cr, metal) 0.05 mg/m <sup>3</sup> (as Cr VI, inorganic compounds) 0.01 mg/m <sup>3</sup> (as Cr VI, inorganic compounds & certain water insoluble)	0.5 mg/m <sup>3</sup> (as Cr II & III, inorganic compounds) 0.5 mg/m <sup>3</sup> (as Cr, metal) 0.001 mg/m <sup>3</sup> (as Cr VI, inorganic compounds & certain water insoluble)	250 mg/m <sup>3</sup> (as Cr II & metal) 25 mg/m <sup>3</sup> (as Cr III) 15 mg/m <sup>3</sup> (as Cr VI)
Manganese	(C) 5.0 mg/m <sup>3</sup> (as Fume & Mn compounds)	0.2 mg/m <sup>3</sup>	(C) 5.0 mg/m <sup>3</sup> 1.0 mg/m <sup>3</sup> (as fume) (STEL) 3.0 mg/m <sup>3</sup>	500 mg Mn/m <sup>3</sup>
Molybdenum	15 mg/m <sup>3</sup> (as total dust, PNOR <sup>5</sup> ) 5.0 mg/m <sup>3</sup> (as respirable fraction, PNOR)	10 mg/m <sup>3</sup> (as Mo insoluble compounds, inhalable fraction <sup>6</sup> ) 3.0 mg/m <sup>3</sup> (as Mo insoluble compounds, respirable fraction <sup>7</sup> ) 0.5 mg/m <sup>3</sup> (as Mo soluble compounds, respirable fraction)	NE	NE
Nickel	1.0 mg/m <sup>3</sup> (as Ni metal & insoluble compounds)	1.5 mg/m <sup>3</sup> (as inhalable fraction Ni metal) 0.2 mg/m <sup>3</sup> (as inhalable fraction Ni inorganic only insoluble and soluble compounds)	0.015 mg/m <sup>3</sup> (as Ni metal & insoluble and soluble compounds)	10 mg/m <sup>3</sup> (as Ni)

NE - None Established

1. OSHA Permissible Exposure Limits (PELs) are 8-hour TWA (time-weighted average) concentrations unless otherwise noted. A (C) designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Peak is defined as the acceptable maximum peak for a maximum duration above the ceiling concentration for an eight-hour shift. A skin notation refers to the potential significant contribution to the overall exposure by the cutaneous route, either by contact with vapors or, of probable greater significance, by direct skin contact with the substance. A Short Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded at any time during a workday. An Action level (AL) is used by OSHA and NIOSH to express a health or physical hazard. They indicate the level of a harmful or toxic substance/activity, which requires medical surveillance, increased industrial hygiene monitoring, or biological monitoring. Action Levels are generally set at one half of the PEL but the actual level may vary from standard to standard. The intent is to identify a level at which the vast majority of randomly sampled exposures will be below the PEL.

**Section 8 - Exposure Controls / Personal Protection (continued)**

**8(a) Occupational Exposure Limits (OELs) (continued):**

2. Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH) are 8-hour TWA concentrations unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as the maximum concentration to which workers can be exposed for a short period of time (15 minutes) for only four times throughout the day with at least one hour between exposures. A "skin" notation refers to the potential significant contribution to the overall exposure by the cutaneous route, either by contact with vapors or, of probable greater significance, by direct skin contact with the substance. ACGIH-TLVs are only recommended guidelines based upon consensus agreement of the membership of the ACGIH. As such, the ACGIH TLVs are for guideline use purposes and are not legal regulatory standards for compliance purposes. The TLVs are designed for use by individuals trained in the discipline of industrial hygiene relative to the evaluation of exposure to various chemical or biological substances and physical agents that may be found in the workplace.
3. The National Institute for Occupational Safety and Health Recommended Exposure Limits (NIOSH-REL)- Compendium of Policy and Statements. NIOSH, Cincinnati, OH (1992). NIOSH is the federal agency designated to conduct research relative to occupational safety and health. As is the case with ACGIH TLVs, NIOSH RELs are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
4. The "immediately dangerous to life or health air concentration values (IDLHs)" are used by NIOSH as part of the respirator selection criteria and were first developed in the mid-1970's by NIOSH. The Documentation for Immediately Dangerous to Life or Health Concentrations (IDLHs) is a compilation of the rationale and sources of information used by NIOSH during the original determination of 387 IDLHs and their subsequent review and revision in 1994.
5. PNOR (Particulates Not Otherwise Regulated). All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by a limit which is the same as the inert or nuisance dust limit of 15 mg/m<sup>3</sup> for total dust and 5 mg/m<sup>3</sup> for the respirable fraction.
6. Inhalable fraction. The concentration of inhalable particulate for the application of this TLV is to be determined from the fraction passing a size-selector with the characteristics defined in the ACGIH 2013 TLVs<sup>®</sup> and BEIs<sup>®</sup> (Biological Exposure Indices) Appendix D, paragraph A.
7. Respirable fraction. The concentration of respirable dust for the application of this limit is to be determined from the fraction passing a size-selector with the characteristics defined in ACGIH 2013 TLVs<sup>®</sup> and BEIs<sup>®</sup> Appendix D, paragraph C.

**8(b) Appropriate Engineering Controls:** Use controls as appropriate to minimize exposure to metal fumes and dusts during handling operations. Provide general or local exhaust ventilation systems to minimize airborne concentrations. Local exhaust is necessary for use in enclosed or confined spaces. Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits.

**8(c) Individual Protection Measures:**

- **Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, use only a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. Concentration in air of the various contaminants determines the extent of respiratory protection needed. Half-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 10 times the exposure limit. Full-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 50 times the exposure limit. Protection by air-purifying negative-pressure and powered air respirators is limited. Use a positive-pressure-demand, full-face, supplied air respirator or self-contained breathing apparatus (SCBA) for concentrations above 50 times the exposure limit. If exposure is above the IDLH (Immediately dangerous to life or health) for any of the constituents, or there is a possibility of an uncontrolled release or exposure levels are unknown, then use a positive-demand, full-face, supplied air respirator with escape bottle or SCBA.

**Warning!** Air-purifying respirators both negative-pressure, and powered-air do not protect workers in oxygen-deficient atmospheres.

- **Eyes:** Wear appropriate eye protection to prevent eye contact. For operations which result in elevating the temperature of the product to or above its melting point or result in the generation of airborne particulates, use safety glasses to prevent eye contact. Contact lenses should not be worn where industrial exposures to this material are likely. Use safety glasses or goggles as required for welding, burning, sawing, brazing, grinding or machining operations.
- **Skin:** Wear appropriate personal protective clothing to prevent skin contact. Cut resistant gloves and sleeves should be worn when working with steel products. For operations which result in elevating the temperature of the product to or above its melting point or result in the generation of airborne particulates, use protective clothing, and gloves to prevent skin contact. Protective gloves should be worn as required for welding, burning or handling operations. Contaminated work clothing must not be allowed out of the workplace.
- **Other protective equipment:** An eyewash fountain and deluge shower should be readily available in the work area.

**Section 9 - Physical and Chemical Properties**

**9(a) Appearance (physical state, color, etc.):** Solid, Gray, bluish, silvery

**9(b) Odor:** Odorless

**9(c) Odor Threshold:** NA

**9(d) pH:** NA

**9(e) Melting Point/Freezing Point:** Base metal - Above 2500 °F

**9(f) Initial Boiling Point and Boiling Range:** ND

**9(g) Flash Point:** NA

**9(h) Evaporation Rate:** NA

**9(i) Flammability (solid, gas):** Non-flammable, non-combustible

NA - Not Applicable

ND - Not Determined for product as a whole

**9(j) Upper/lower Flammability or Explosive Limits:** NA

**9(k) Vapor Pressure:** NA

**9(l) Vapor Density (Air = 1):** NA

**9(m) Relative Density:** 7.85

**9(n) Solubility(ies):** Insoluble

**9(o) Partition Coefficient n-octanol/water:** ND

**9(p) Auto-ignition Temperature:** NA

**9(q) Decomposition Temperature:** ND







**9(r) Viscosity:** NA

### Section 10 - Stability and Reactivity

- 10(a) Reactivity:** Not Determined (ND) for product in a solid form. Do not use water on molten metal.
- 10(b) Chemical Stability:** Steel products are stable under normal storage and handling conditions.
- 10(c) Possibility of hazardous reaction:** None Known
- 10(d) Conditions to Avoid:** Storage with strong acids or calcium hypochlorite
- 10(e) Incompatible Materials:** Will react with strong acids to form hydrogen. Iron oxide dusts in contact with calcium hypochlorite evolve oxygen and may cause an explosion.
- 10(f) Hazardous Decomposition Products:** Thermal oxidative decomposition of steel products can produce fumes containing oxides of iron and manganese as well as other alloying elements.

### Section 11 - Toxicological Information

**11(a-e) Information on toxicological effects:** The following toxicity data has been determined for **Carbon and Low Alloy Steel Pipe and Tube** when further processed using the information available for its components applied to the guidance on the preparation of an SDS under the GHS requirements of OSHA and the EU CPL:

Hazard Classification	Hazard Category		Hazard Symbols	Signal Word	Hazard Statement
	EU	OSHA			
<b>Acute Toxicity Hazard</b> (covers Categories 1-4)	NA*	4 <sup>a</sup>		<b>Warning</b>	Harmful if swallowed.
<b>Eye Damage/ Irritation</b> (covers Categories 1, 2A and 2B)	NA*	2B <sup>c</sup>	No Pictogram	<b>Warning</b>	Causes eye irritation.
<b>Skin/Dermal Sensitization</b> (covers Category 1)	NA*	1 <sup>d</sup>		<b>Warning</b>	May cause an allergic skin reaction.
<b>Carcinogenicity</b> (covers Categories 1A, 1B and 2)	NA*	2 <sup>g</sup>		<b>Warning</b>	Suspected of causing cancer.
<b>Toxic Reproduction</b> (covers Categories 1A, 1B and 2)	NA*	2 <sup>h</sup>		<b>Warning</b>	Suspected of damaging fertility or the unborn child.
<b>Specific Target Organ Toxicity (STOT) Following Single Exposure</b> (covers Categories 1-3)	NA*	3 <sup>i</sup>		<b>Warning</b>	May cause respiratory irritation.
<b>STOT following Repeated Exposure</b> (covers Categories 1 and 2)	NA*	1 <sup>j</sup>		<b>Danger</b>	Causes damage to lungs and central nervous system through prolonged or repeated inhalation exposure.

\* Not Applicable - Semi-formed steel products are considered articles under Reach regulation (REACH REGULATION (EC) No 1907/2006) and are not subject to classification under CLP regulation (REGULATION (EC) No 1272/2008).

Toxicological data listed below are presented regardless to classification criteria. Individual hazard classification categories where the toxicological information has met or exceeded a classification criteria threshold are listed above.

- a. No LC<sub>50</sub> or LD<sub>50</sub> has been established for **Carbon and Low Alloy Steel Pipe and Tube**. The following data has been determined for the components:
- **Iron:** Rat LD<sub>50</sub> =98.6 g/kg (REACH)  
Rat LD<sub>50</sub> =1060 mg/kg (IUCLID)  
Rat LD<sub>50</sub> =984 mg/kg (IUCLID)  
Rabbit LD<sub>50</sub> =890 mg/kg (IUCLID)  
Guinea Pig LD<sub>50</sub> =20 g/kg (TOXNET)
  - **Nickel:** LD<sub>50</sub> >9000 mg/kg (Oral/Rat)
  - **Manganese:** Rat LD<sub>50</sub> > 2000 mg/kg (REACH)  
Rat LD<sub>50</sub> > 9000 mg/kg (NLM Toxnet)
- b. No Skin (Dermal) Irritation data available for **Carbon and Low Alloy Steel Pipe and Tube** as a mixture. The following Skin (Dermal) Irritation information was found for the components:
- **Molybdenum:** May cause skin irritation.
- c. No Eye Irritation data available for **Carbon and Low Alloy Steel Pipe and Tube** as a mixture. The following Eye Irritation information was found for the components:
- **Iron and Molybdenum:** Causes eye irritation.
  - **Nickel:** Slight eye irritation from particulate abrasion only.
- d. No Skin (Dermal) Sensitization data available for **Carbon and Low Alloy Steel Pipe and Tube** as a mixture. The following Skin (Dermal) Sensitization information was found for the components:
- **Nickel:** May cause allergic skin sensitization.
- e. No Respiratory Sensitization data available for **Carbon and Low Alloy Steel Pipe and Tube** as a mixture or its components.

## Section 11 - Toxicological Information (continued)

### 11 Information on toxicological effects (continued):

- f. No Germ Cell Mutagenicity data available for **Carbon and Low Alloy Steel Pipe and Tube** as a mixture. The following Mutagenicity and Genotoxicity information was found for the components:
- **Iron:** IUCLID has found some positive and negative findings in vitro.
  - **Nickel:** EU RAR has found positive results in vitro and in vivo but insufficient data for classification.
- g. Carcinogenicity: IARC, NTP, and OSHA do not list **Carbon and Low Alloy Steel Pipe and Tube** as carcinogens. The following Carcinogenicity information was found for the components:
- **Welding Fumes** - IARC Group 2B carcinogen, a mixture that is possibly carcinogenic to humans.
  - **Chromium (as metal and trivalent chromium compounds)** – IARC Group 3 carcinogens, not classifiable as to their human carcinogenicity.
  - **Nickel and certain nickel compounds** – Group 2B - metallic nickel Group 1 - nickel compounds ACGIH confirmed human carcinogen. Nickel – EURAR Insufficient evidence to conclude carcinogenic potential in animals or humans; suspect carcinogen classification Category 2 Suspected of causing cancer.
- h. No Toxic Reproduction data available for **Carbon and Low Alloy Steel Pipe and Tube** as a mixture. The following Toxic Reproductive information was found for the components:
- **Nickel:** Effects on fertility.
- i. No Specific Target Organ Toxicity (STOT) following a Single Exposure data available for **Carbon and Low Alloy Steel Pipe and Tube** as a mixture. The following STOT following a Single Exposure data was found for the components:
- **Iron and Molybdenum:** Irritating to Respiratory tract.
- j. No Specific Target Organ Toxicity (STOT) following Repeated Exposure data was available for **Carbon and Low Alloy Steel Pipe and Tube** as a whole. The following STOT following Repeated Exposure data was found for the components:
- **Nickel:** Rat 4 wk inhalation LOEL 4 mg/m<sup>3</sup> Lung and Lymph node histopathology. Rat 2 yr inhalation LOEL 0.1 mg/ m<sup>3</sup> Pigment in kidney, effects on hematopoiesis spleen and bone marrow and adrenal tumor. Rat 13 Week Inhalation LOAEC 1.0 mg/m<sup>3</sup> Lung weights, and Alveolar histopathology.
  - **Manganese:** Inhalation of metal fumes - Degenerative changes in human Brain; Behavioral: Changes in motor activity and muscle weakness (Whitlock *et al.*, 1966).

The above toxicity information was determined from available scientific sources to illustrate the prevailing posture of the scientific community. The scientific resources includes: The American Conference of Governmental Industrial Hygienist (ACGIH) Documentation of the Threshold Limit Values (TLVs) and Biological Exposure indices (BEIs) with Other Worldwide Occupational Exposure Values 2009, The International Agency for Research on Cancer (IARC), The National Toxicology Program (NTP) updated documentation, the World Health Organization (WHO) and other available resources, the International Uniform Chemical Information Database (IUCLID), European Union Risk Assessment Report (EU-RAR), Concise International Chemical Assessment Documents (CICAD), European Union Scientific Committee for Occupational Exposure Limits (EU-SCOEL), Agency for Toxic Substances and Disease Registry (ATSDR), Hazardous Substance Data Bank (HSDB), and International Programme on Chemical Safety (IPCS).

The following health hazard information is provided regardless to classification criteria and is based on the individual component(s) and potential resultant components from further processing:

#### Acute Effects:

- **Inhalation:** Excessive exposure to high concentrations of metal dust may cause irritation to the eyes, skin and mucous membranes of the upper respiratory tract. Excessive inhalation of fumes of freshly formed metal oxide particles sized below 1.5 micrometer and usually between 0.02-0.05 micrometers from many metals can produce an acute reaction known as “metal fume fever”. Symptoms consist of chills and fever (very similar to and easily confused with flu symptoms), metallic taste in the mouth, dryness and irritation of the throat followed by weakness and muscle pain. The symptoms come on in a few hours after excessive exposures and usually last from 12 to 48 hours. Long-term effects from metal fume fever have not been noted. Freshly formed oxide fumes of manganese and copper have been associated with causing metal fume fever.
- **Eye:** Excessive exposure to high concentrations of metal dust may cause irritation to the eyes.
- **Skin:** Skin contact with metal dusts may cause irritation or sensitization, possibly leading to dermatitis. Skin contact with metallic fumes and dusts may cause physical abrasion.
- **Ingestion:** Ingestion of harmful amounts of this product as distributed is unlikely due to its solid insoluble form. Ingestion of metal dust may cause nausea or vomiting.

#### Acute Effects by component:

- **Iron and iron oxides:** Iron is harmful if swallowed, causes skin irritation, and causes eye irritation. Contact with iron oxide has been reported to cause skin irritation and serious eye damage. Particles of iron or iron compounds, which become imbedded in the eye, may cause rust stains unless removed fairly promptly.
- **Chromium, chromium oxides and hexavalent chrome:** Hexavalent chrome causes damage to gastrointestinal tract, lung, severe skin burns and eye damage, serious eye damage, skin contact may cause an allergic skin reaction. Inhalation may cause allergic or asthmatic symptoms or breathing difficulties.
- **Manganese and manganese oxides:** Manganese and Manganese oxide are harmful if swallowed.
- **Molybdenum and Oxides:** Molybdenum causes skin and eye irritation. Molybdenum oxide is toxic if swallowed, and causes eye irritation
- **Nickel and nickel oxides:** Nickel may cause allergic skin sensitization. Nickel oxide may cause an allergic skin.

#### Delayed (chronic) Effects by component:

- **Iron and iron oxides:** Chronic inhalation of excessive concentrations of iron oxide fumes or dusts may result in the development of a benign pneumoconiosis, called siderosis, which is observable as an X-ray change. No physical impairment of lung function has been associated with siderosis. Inhalation of excessive concentrations of ferric oxide may enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens. Iron oxide is listed as a Group 3 (not classifiable) carcinogen by the International Agency for Research on Cancer (IARC).

### Section 11 - Toxicological Information (continued)

**Delayed (chronic) Effects by component (continued):**

- Chromium, chromium oxides and hexavalent chromium:** The health hazards associated with exposure to chromium are dependent upon its oxidation state. The metal form (chromium as it exists in this product) is of very low toxicity. The hexavalent form is very toxic. Repeated or prolonged exposure to hexavalent chromium compounds may cause respiratory irritation, nosebleed, ulceration and perforation of the nasal septum. Industrial exposure to certain forms of hexavalent chromium has been related to an increased incidence of cancer. NTP (The National Toxicology Program) Fourth Annual report on Carcinogens cites "certain Chromium compounds" as human carcinogens. ACGIH has reviewed the toxicity data and concluded that chromium metal is not classifiable as a human carcinogen. Hexavalent chromium may cause genetic defects and is suspected of damaging the unborn child. Developmental toxicity in the mouse, suspected of damaging fertility or the unborn child.
- Manganese and manganese oxides:** Chronic exposure to high concentrations of manganese fumes and dusts may adversely affect the central nervous system with symptoms including languor, sleepiness, weakness, emotional disturbances, spastic gait, mask-like facial expression and paralysis. Animal studies indicate that manganese exposure may increase susceptibility to bacterial and viral infections. Occupational overexposure (Manganese) is a progressive, disabling neurological syndrome that typically begins with relatively mild symptoms and evolves to include altered gait, fine tremor, and sometimes, psychiatric disturbances. May cause damage to lungs with repeated or prolonged exposure. Neurobehavioral alterations in worker populations exposed to manganese oxides include: speed and coordination of motor function are especially impaired.
- Molybdenum and Oxides:** Certain handling operations, such as burning and welding, may generate both insoluble molybdenum compounds (metal and molybdenum dioxide) and soluble molybdenum compounds (molybdenum trioxide). Molybdenum compounds generally exhibit a low order of toxicity with the trioxide the more toxic. However, some reports indicate that the dust of the molybdenum metal, molybdenum dioxide and molybdenum trioxide may cause eye, skin, nose and throat irritation in animals. Also has been reported to cause induction of tumors in experimental animals, suspected of causing cancer. Molybdenum oxide is suspected of causing cancer in humans.
- Nickel and nickel oxides:** Exposure to nickel dusts and fumes can cause sensitization dermatitis, respiratory irritation, asthma, pulmonary fibrosis, edema, and may cause nasal or lung cancer in humans. Nickel causes damage to lungs through prolonged or repeated inhalation exposure. IARC lists nickel and certain nickel compounds as Group 2B carcinogens (sufficient animal data). ACGIH 2013 TLVs® and BEIs® lists insoluble nickel compounds as confirmed human carcinogens. Nickel is suspected of damaging the unborn child.

### Section 12 - Ecological Information

**12(a) Ecotoxicity (aquatic & terrestrial):** No Data Available for **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped. However, individual components of the product when processed have been found to be toxic to the environment. Metal dusts may migrate into soil and groundwater and be ingested by wildlife as follows:

- Iron Oxide:** LC<sub>50</sub>: >1000 mg/L; Fish 48 h-EC<sub>50</sub> > 100 mg/L (Currenta, 2008k); 96 h-LC<sub>0</sub> ≥ 50,000 mg/L Test substance: Bayferrox 130 red (95 – 97% Fe<sub>2</sub>O<sub>3</sub>; < 4% SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub>) (Bayer, 1989a)
- Hexavalent Chrome:** EU RAR listed as category 1, found acute EC<sub>50</sub> and LD<sub>50</sub> to algae and invertebrates < 1 mg.
- Nickel Oxide:** IUCLID found LC<sub>50</sub> in fish, invertebrates and algae > 100 mg/l.

**12(b) Persistence & Degradability:** No Data Available for **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped or individual components.

**12(c) Bioaccumulative Potential:** No Data Available for **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped or individual components.

**12(d) Mobility (in soil):** No data available for **Carbon and Low Alloy Steel Pipe and Tube** as sold/shipped. However, individual components of the product have been found to be absorbed by plants from soil.

**12(e) Other adverse effects:** None Known

**Additional Information:**

**Hazard Category:** Not Reported

**Signal Word:** No Signal Word

**Hazard Symbol:** No Symbol

**Hazard Statement:** No Statement

### Section 13 - Disposal Considerations

**Disposal:** Steel scrap should be recycled whenever possible. Product dusts and fumes from processing operations should also be recycled, or classified by a competent environmental professional and disposed of in accordance with applicable federal, state or local regulations.

**Container Cleaning and Disposal:** Follow applicable federal, state and local regulations. Observe safe handling precautions. European Waste Catalogue (EWC): 16-01-17 (ferrous metals), 12-01-99 (wastes not otherwise specified), 16-03-04 (off specification batches and unused products), or 15-01-04 (metallic packaging).

**Please note this information is for Carbon and Low Alloy Steel Pipe and Tube in its original form. Any alterations can void this information.**



**Section 14 - Transport Information**

**14 (a-g) Transportation Information:**

US Department of Transportation (DOT) under 49 CFR 172.101 does not regulate Carbon and Low Alloy Steel Pipe and Tube as a hazardous material. All federal, state, and local laws and regulations that apply to the transport of this type of material must be adhered to.

<b>Shipping Name:</b> Not Applicable (NA) <b>Shipping Symbols:</b> NA <b>Hazard Class:</b> NA <b>UN No.:</b> NA <b>Packing Group:</b> NA <b>DOT/IMO Label:</b> NA <b>Special Provisions (172.102):</b> NA	<b>Packaging Authorizations</b> <b>a) Exceptions:</b> NA <b>b) Group:</b> NA <b>c) Authorization:</b> NA	<b>Quantity Limitations</b> <b>a) Passenger, Aircraft, or Railcar:</b> NA <b>b) Cargo Aircraft Only:</b> NA <b>Vessel Stowage Requirements</b> <b>a) Vessel Stowage:</b> NA <b>b) Other:</b> NA <b>DOT Reportable Quantities:</b> NA
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International Maritime Dangerous Goods (IMDG) and the Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID) classification, packaging and shipping requirements follow the US DOT Hazardous Materials Regulation.

Regulations Concerning the International Carriage of Dangerous Goods by Road (ADR) does not regulate Carbon and Low Alloy Steel Pipe and Tube as a hazardous material.

<b>Shipping Name:</b> Not Applicable (NA) <b>Classification Code:</b> NA <b>UN No.:</b> NA <b>Packing Group:</b> NA <b>ADR Label:</b> NA <b>Special Provisions:</b> NA <b>Limited Quantities:</b> NA	<b>Packaging</b> <b>a) Packing Instructions:</b> NA <b>b) Special Packing Provisions:</b> NA <b>c) Mixed Packing Provisions:</b> NA	<b>Portable Tanks &amp; Bulk Containers</b> <b>a) Instructions:</b> NA <b>b) Special Provisions:</b> NA
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International Air Transport Association (IATA) does not regulate Carbon and Low Alloy Steel Pipe and Tube as a hazardous material.

<b>Shipping Name:</b> Not Applicable (NA) <b>Class/Division:</b> NA <b>Hazard Label (s):</b> NA <b>UN No.:</b> NA <b>Packing Group:</b> NA <b>Excepted Quantities (EQ):</b> NA	<b>Passenger &amp; Cargo Aircraft Limited Quantity (EQ)</b>		<b>Cargo Aircraft Only Pkg Inst:</b> NA  <b>Max Net Qty/Pkg:</b> NA	<b>Special Provisions:</b> NA  <b>ERG Code:</b> NA
	<b>Pkg Inst:</b> NA	<b>Pkg Inst:</b> NA		
	<b>Max Net Qty/Pkg:</b> NA	<b>Max Net Qty/Pkg:</b> NA		

Pkg Inst – Packing Instructions                      Max Net Qty/Pkg – Maximum Net Quantity per Package                      ERG – Emergency Response Drill Code

Transport Dangerous Goods (TDG) Classification: Carbon and Low Alloy Steel Pipe and Tube does not have a TDG classification.

**Section 15 - Regulatory Information**

**Regulatory Information:** The following listing of regulations relating to a Vallourec Star product may not be complete and should not be solely relied upon for all regulatory compliance responsibilities. .

This product and/or its constituents are subject to the following regulations:

**OSHA Regulations:** Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-2, Z-3): The product, Carbon and Low Alloy Steel Pipe and Tube as a whole is not listed. However, individual components of the product are listed: Refer to Section 8, Exposure Controls and Personal Protection

**EPA Regulations:** The product, Carbon and Low Alloy Steel Pipe and Tube is not listed as a whole. However, individual components of the product are listed:

Components	Regulations
Chromium	CERCLA, CWA, SARA 313, RCRA, SDWA
Manganese	CAA, SARA 313, SDWA
Nickel	CAA, CERCLA, CWA, SARA 313

**SARA 311/312 Potential Hazard Categories:** Immediate Acute Health Hazard; Delayed Chronic Health Hazard

**Regulations Key:**

- CAA Clean Air Act (42 USC Sec. 7412; 40 CFR Part 61 [As of: 8/18/06])
- CERCLA Comprehensive Environmental Response, Compensation and Liability Act (42 USC Secs. 9601(14), 9603(a); 40 CFR Sec. 302.4, Table 302.4, Table 302.4 and App. A)
- CWA Clean Water Act (33 USC Secs. 1311; 1314(b), (c), (e), (g); 136(b), (c); 137(b), (c) [as of 8/2/06])
- RCRA Resource Conservation Recovery Act (42 USC Sec. 6921; 40 CFR Part 261 App VIII)
- SARA Superfund Amendments and Reauthorization Act of 1986 Title III Section 302 Extremely Hazardous Substances (42 USC Secs. 11023, 13106; 40 CFR sec. 372.65) and Section 313 Toxic Chemicals (42 USC Secs. 11023, 13106; 40 CFR Sec. 372.65 [as of 6/30/05])
- TSCA Toxic Substance Control Act (15 U.S.C. s/s 2601 et seq. [1976])
- SDWA Safe Drinking Water Act (42 U.S.C. s/s 300f et seq. [1974])

**Section 15 - Regulatory Information (continued)**

**Section 313 Supplier Notification:** The product, **Carbon and Low Alloy Steel Pipe and Tube** contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act and 40 CFR part 372:

CAS #	Chemical Name	Percent by Weight
7440-47-3	Chromium	26 max
7439-96-5	Manganese	10 max
7440-02-0	Nickel	22 max

**State Regulations:** The product, **Carbon and Low Alloy Steel Pipe and Tube** as a whole is not listed in any state regulations. However, individual components of the product are listed in various state regulations:

- Pennsylvania Right to Know (RTK):** Contains regulated material in the following categories:
- Hazardous Substances: Manganese and Molybdenum
  - Environmental Hazards: Chromium, Manganese and Nickel
  - Special Hazardous Substance: Chromium and Nickel
- California Prop. 65:** Contains elements known to the State of California to cause cancer or reproductive toxicity. This includes chromium compounds and nickel.
- New Jersey:** Contains regulated material in the following categories:
- Hazardous Substance: Chromium, Manganese, and Nickel
  - Special Health Hazard Substances: None Listed
- Minnesota:** Chromium, Manganese, Molybdenum, and Nickel
- Massachusetts:** Chromium, Manganese, Molybdenum, and Nickel

**Other Regulations:**

**WHMIS Classification (Canadian):** The product, **Carbon and Low Alloy Steel Pipe and Tube** is not listed as a whole. However individual components are listed.

Ingredients	WHMIS Classification
Iron	B4, D2B
Manganese	B4, D2A
Molybdenum	B4, D2B
Nickel	D2A, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

**Section 16 - Other Information**

**Prepared By:** AM Health and Safety

**Revision History:**

- 11/01/2003 - Original
- 02/21/2014 - Convert to SDS format

**Additional Information:**

**Hazardous Material Identification System (HMIS) Classification**

<b>Health Hazard</b>	<b>1</b>
<b>Fire Hazard</b>	<b>0</b>
<b>Physical Hazard</b>	<b>0</b>

HEALTH= 1, Denotes possible chronic hazard if airborne dusts or fumes are generated Irritation or minor reversible injury possible.  
 FIRE= 0, Materials that will not burn  
 PHYSICAL HAZARD= 0, Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.

**National Fire Protection Association (NFPA)**



HEALTH = 1, Exposure could cause irritation but only minor residual injury even if no treatment is given.  
 FLAMMABILITY = 0, Materials that will not burn  
 INSTABILITY = 0, Normally stable, even under fire exposure conditions, and are not reactive with water.

**ABBREVIATIONS/ACRONYMS:**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists	<b>NIF</b>	No Information Found
<b>BEIs</b>	Biological Exposure Indices	<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>CAS</b>	Chemical Abstracts Service	<b>NTP</b>	National Toxicology Program
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act	<b>ORC</b>	Organization Resources Counselors
<b>CFR</b>	Code of Federal Regulations	<b>OSHA</b>	Occupational Safety and Health Administration
<b>CNS</b>	Central Nervous System	<b>PEL</b>	Permissible Exposure Limit

**Section 16 - Other Information (continued)**

**ABBREVIATIONS/ACRONYMS (continued):**

<b>GI, GIT</b>	Gastro-Intestinal, Gastro-Intestinal Tract	<b>PNOR</b>	Particulate Not Otherwise Regulated
<b>HMIS</b>	Hazardous Materials Identification System	<b>PNOC</b>	Particulate Not Otherwise Classified
<b>IARC</b>	International Agency for Research on Cancer	<b>PPE</b>	Personal Protective Equipment
<b>LC50</b>	Median Lethal Concentration	<b>ppm</b>	parts per million
<b>LD50</b>	Median Lethal Dose	<b>RCRA</b>	Resource Conservation and Recovery Act
<b>LD<sub>Lo</sub></b>	Lowest Dose to have killed animals or humans	<b>RTECS</b>	Registry of Toxic Effects of Chemical Substances
<b>LEL</b>	Lower Explosive Limit	<b>SARA</b>	Superfund Amendment and Reauthorization Act
<b>LOEL</b>	Lowest Observed Effect Level	<b>SCBA</b>	Self-contained Breathing Apparatus
<b>LOAEC</b>	Lowest Observable Adverse Effect Concentration	<b>SDS</b>	Safety Data Sheet
<b>µg/m<sup>3</sup></b>	microgram per cubic meter of air	<b>STEL</b>	Short-term Exposure Limit
<b>mg/m<sup>3</sup></b>	milligram per cubic meter of air	<b>TLV</b>	Threshold Limit Value
<b>mppcf</b>	million particles per cubic foot	<b>TWA</b>	Time-weighted Average
<b>MSHA</b>	Mine Safety and Health Administration	<b>UEL</b>	Upper Explosive Limit
<b>NFPA</b>	National Fire Protection Association		

**Disclaimer:** This information is taken from sources or based upon data believed to be reliable. However, Vallourec Star makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.

**Synonyms for Carbon and Low Alloy Steel Pipe and Tube**

<b>Casing</b>	<b>Line Pipe</b>	<b>Coupling Stock</b>
<b>Liner</b>	<b>Tubing</b>	<b>Structural Pipe</b>
<b>Structural Tubing</b>	<b>Fittings Pipe</b>	<b>Standard Pipe</b>
<b>OCTG</b>	<b>Seamless Pipe</b>	<b>Mechanical Tubing</b>



# SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Clorox® Clean-Up® Cleaner + Bleach<sub>1</sub> - Fresh Scent

### Other means of identification

**EPA Registration Number** 5813-21

### Recommended use of the chemical and restrictions on use

**Recommended use** Disinfecting bleach spray cleaner

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Supplier Address**

The Clorox Company  
1221 Broadway, Oakland, CA 94612  
USA  
Phone: 1-510-271-7000

### Emergency telephone number

**Emergency Phone Numbers** For Medical Emergencies, call: 1-800-446-1014  
For Transportation Emergencies, call Chemtrec: 1-800-424-9300


## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2A

**GHS Label elements, including precautionary statements****Emergency Overview**

<b>Signal word</b>	<b>Warning</b>		
<b>Hazard Statements</b>			
Causes mild skin irritation			
Causes serious eye irritation			
			
<b>Appearance</b>	Clear, pale yellow	<b>Physical State</b>	Liquid
		<b>Odor</b>	Apple, floral, bleach

**Precautionary Statements - Prevention**

Wash hands and any exposed skin thoroughly after handling.  
Wear eye protection/face protection such as safety glasses.

**Precautionary Statements - Response****Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin**

If skin irritation occurs: Get medical advice/attention.

**Precautionary Statements - Storage**

None

**Precautionary Statements - Disposal**

None

**Hazards not otherwise classified (HNOC)**

The following medical conditions may be aggravated by exposure to high concentrations of vapor or mist: heart conditions or chronic respiratory problems such as asthma, emphysema, or obstructive lung disease.

**Unknown Toxicity**

0.12% of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

Toxic to aquatic life with long lasting effects

**Interactions with Other Chemicals**

Reacts with other household chemicals such as products containing ammonia, toilet bowl cleaners, rust removers, or acids to produce hazardous gases, such as chlorine and other chlorinated compounds.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %	Trade Secret
Sodium hypochlorite	7681-52-9	1 - 5	
Sodium hydroxide	1310-73-2	0.1 - 1	

The exact percentage (concentration) of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### First aid measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
<b>Skin Contact</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. If irritation develops, call a doctor.
<b>Inhalation</b>	Move to fresh air. If breathing is affected, call a doctor.
<b>Ingestion</b>	Call a poison control center or doctor immediately. Have person sip a glassful of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor.
<b>Protection of First-aiders</b>	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

##### Most important symptoms and effects, both acute and delayed

<b>Most Important Symptoms and Effects</b>	Stinging and irritation of eyes.
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##### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
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#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

##### Specific Hazards Arising from the Chemical

No information available.

##### Explosion Data

<b>Sensitivity to Mechanical Impact</b>	None.
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<b>Sensitivity to Static Discharge</b>	None.
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##### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Avoid contact with eyes, skin, and clothing. Use personal protective equipment as required.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental Precautions** See Section 12 for ecological Information.

### Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Products** Products containing ammonia, toilet bowl cleaners, rust removers, or acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

### Appropriate engineering controls

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	If splashes are likely to occur: Wear safety glasses with side shields (or goggles). None required for consumer use.
<b>Skin and Body Protection</b>	Wear protective gloves and protective clothing.
<b>Respiratory Protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene Measures</b>	Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical and Chemical Properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	Apple, floral, bleach
<b>Appearance</b>	Clear	<b>Odor Threshold</b>	No information available
<b>Color</b>	Pale yellow		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks/ Method</u></b>	
<b>pH</b>	12.4 - 12.8	None known	
<b>Melting/freezing point</b>	No data available	None known	
<b>Boiling point / boiling range</b>	No data available	None known	
<b>Flash Point</b>	Not flammable	None known	
<b>Evaporation rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability Limits in Air</b>			
<b>Upper flammability limit</b>	No data available	None known	
<b>Lower flammability limit</b>	No data available	None known	
<b>Vapor pressure</b>	No data available	None known	
<b>Vapor density</b>	No data available	None known	
<b>Specific Gravity</b>	1.03	None known	
<b>Water Solubility</b>	Soluble in water	None known	
<b>Solubility in other solvents</b>	No data available	None known	
<b>Partition coefficient: n-octanol/water</b>	No data available	None known	
<b>Autoignition temperature</b>	No data available	None known	
<b>Decomposition temperature</b>	No data available	None known	
<b>Kinematic viscosity</b>	No data available	None known	
<b>Dynamic viscosity</b>	No data available	None known	
<b>Explosive Properties</b>	Not explosive		
<b>Oxidizing Properties</b>	No data available		
<b><u>Other Information</u></b>			
<b>Softening Point</b>	No data available		
<b>VOC Content (%)</b>	No data available		
<b>Particle Size</b>	No data available		
<b>Particle Size Distribution</b>	No data available		



## 10. STABILITY AND REACTIVITY

### Reactivity

Reacts with other household chemicals such as products containing ammonia, toilet bowl cleaners, rust removers, or acids to produce hazardous gases, such as chlorine and other chlorinated compounds.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

None known based on information supplied.

### Incompatible materials

Products containing ammonia, toilet bowl cleaners, rust removers, vinegar, or acids.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Exposure to vapor or mist may irritate respiratory tract.
<b>Eye Contact</b>	May cause eye irritation.
<b>Skin Contact</b>	Prolonged contact may cause irritation.
<b>Ingestion</b>	Ingestion may cause irritation to mucous membranes and gastrointestinal tract, nausea, vomiting, and diarrhea.

#### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	10000 mg/kg (Rabbit)	-
Sodium hydroxide 1310-73-2	-	1350 mg/kg (Rabbit)	-

### Information on toxicological effects

**Symptoms** May cause redness and tearing of the eyes.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

*IARC (International Agency for Research on Cancer)  
Group 3 - Not Classifiable as to Carcinogenicity in Humans*

**Reproductive Toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Chronic Toxicity** Carcinogenic potential is unknown.  
**Target Organ Effects** Respiratory system, eyes, skin, gastrointestinal tract (GI).  
**Aspiration Hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document  
 Not applicable

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**  
 Toxic to aquatic life with long lasting effects.

**Persistence and Degradability**  
 No information available.

**Bioaccumulation**  
 No information available.

**Other adverse effects**  
 No information available.

**13. DISPOSAL CONSIDERATIONS**

**Disposal methods**  
 Dispose of in accordance with all applicable federal, state, and local regulations.

**Contaminated Packaging**  
 Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

**14. TRANSPORT INFORMATION**

**DOT** NOT REGULATED

**TDG**  
**UN-No** UN3082  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard Class** 9  
**Packing Group** III  
**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT

**ICAO**

**UN-No** UN3082  
**Proper Shipping Name** ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard Class** 9  
**Packing Group** III  
**Description** UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

**IATA**

**UN-No** UN3082  
**Proper Shipping Name** ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard Class** 9  
**Packing Group** III  
**Description** UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

**IMDG/IMO**

**UN-No** UN3082  
**Proper Shipping Name** ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard Class** 9  
**Packing Group** III  
**EmS No.** F-A, S-F  
**Marine Pollutant** Product is a marine pollutant according to the criteria set by IMDG/IMO  
**Description** UN3082, ENVIRONMENTALLY HA ARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT

**15. REGULATORY INFORMATION**

**Chemical Inventories**

**TSCA** All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.  
**DSL/NDSL** All components are on the DSL or NDSL.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**U.S. Federal Regulations**

**SARA 313**  
 Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are sub ect to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb			
Sodium hydroxide 1310-73-2	1000 lb			

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**WARNING: EYE AND SKIN IRRITANT.** Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. Harmful if swallowed. For sensitive skin or prolonged use, wear gloves. Vapors may irritate. Avoid prolonged breathing of vapors. Use only in well ventilated areas. **Not recommended for use by persons with heart conditions or chronic respiratory problems such as asthma, emphysema or obstructive lung disease.**

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9					
Sodium hydroxide 1310-73-2					

**International Regulations****Canada****WHMIS Hazard Class**

D2B - Toxic materials



**16. OTHER INFORMATION**

**NFPA**      Health Hazard 2      Flammability 0      Instability 0      Physical and Chemical Hazards -

**HMIS**      Health Hazard 2      Flammability 0      Physical Hazard 0      Personal Protection B

**Prepared By**                      Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

**Revision Date**                      New

**Revision Note**                      New

**Reference**                              1086765/125259.001

**General Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# SAFETY DATA SHEET

Revision Date 01-Apr-2015

Version 1

## 1. IDENTIFICATION

**Product identifier**
**Product Name** OMNI CALCIUM HARDNESS INCREASER

**Other means of identification**
**Product Code** 23443OMN

**Recommended use of the chemical and restrictions on use**
**Recommended Use** Swimming Pool Product.  
**Uses advised against** Do not mix with other chemicals

**Details of the supplier of the safety data sheet**
**Supplier Address**

 Asepsis, Inc.  
 P.O. Box 1788  
 Suwanee, GA 30024  
 Telephone: 800-859-7946

**Emergency telephone number**
**Emergency Telephone** Chemtrec (Transportation) 1-800-424-9300, 703-527-3887  
 Poison Control Center (Medical) : (877) 800-5553

## 2. HAZARDS IDENTIFICATION

**Classification**
**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2

**Label elements**
**Emergency Overview**
**Warning**
**Hazard statements**

 Harmful if swallowed  
 Causes serious eye irritation

**Color** white, off-white

**Physical state** Solid

**Odor** Odorless

**Precautionary Statements - Prevention**

 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Wear protective gloves/protective clothing/eye protection/face protection

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

0% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Mixture**

Chemical Name	CAS No.	Weight-%
calcium chloride	10043-52-4	100

### 4. FIRST AID MEASURES

**Description of first aid measures**

<b>General advice</b>	If symptoms persist, call a physician.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Inhalation</b>	Remove to fresh air. If symptoms persist, call a physician. Immediate medical attention is not required.
<b>Ingestion</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Call a physician immediately.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical**

There are no unusual fire and explosion hazards known.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protective equipment as required. Avoid contact with eyes and skin. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed. Keep out of the reach of children. Keep in properly labeled containers. Keep in a dry, cool and well-ventilated place.

**Incompatible materials** Strong oxidizing agents. Do not mix with other swimming pool/spa chemicals in their concentrated forms.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations



Ventilation systems.

**Individual protection measures, such as personal protective equipment**

- Eye/face protection**                      Wear safety glasses with side shields (or goggles).
- Skin and body protection**                Wear protective gloves and protective clothing.
- Respiratory protection**                    If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations**        When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Solid	<b>Odor</b>	Odorless
<b>Appearance</b>	granules	<b>Odor threshold</b>	No information available
<b>Color</b>	white, off-white		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>		No data available
<b>Melting point/freezing point</b>	772 C / 1422 F	
<b>Boiling point / boiling range</b>	No information available	
<b>Flash point</b>	No information available	
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No information available	
<b>Lower flammability limit:</b>	No information available	
<b>Vapor pressure</b>	No information available	
<b>Vapor density</b>	No information available	
<b>Specific Gravity</b>	No information available	
<b>Water solubility</b>	Soluble in water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	No information available	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Density</b>	749	kg/m <sup>3</sup>
<b>Bulk density</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**  
No data available  
**Chemical stability**  
Reacts exothermically with water.



Other adverse effects No information available

**13. DISPOSAL CONSIDERATIONS**

Waste treatment methods

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse container. Refer to all federal, state and local regulations prior to disposal of container and unused contents by reuse, recycle or disposal.

**14. TRANSPORT INFORMATION**

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

**15. REGULATORY INFORMATION**

International Inventories

**TSCA** Complies  
**DSL/NDSL** Complies

Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are sub ect to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** This product does not contain any substances regulated as pesticides

**Difference between SDS and CPSC label**

This product is regulated under Consumer Product Safety Commission and is sub ect to certain labeling requirements under the Federal Hazardous Substances Act (16 CFR Part 1500) . These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace product labels.

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b><u>NFPA</u></b>	Health hazards 1	Flammability 0	Instability 0	Physical and Chemical Properties -
<b><u>HMIS</u></b>	Health hazards 1	Flammability 0	Physical hazards 0	Personal protection

<b>Prepared By</b>	Regulatory Affairs
<b>Revision Date</b>	01-Apr-2015
<b>Revision Note</b>	No information available

**Disclaimer**

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**End of Safety Data Sheet**

### SECTION 1: Identification

#### 1.1. Identification

Product form : Substance  
 Substance name : Water  
 CAS No : 7732-18-5  
 Product code : LC26750  
 Formula : H<sub>2</sub>O

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For laboratory and manufacturing use only.  
 Recommended use : Laboratory chemicals  
 Restrictions on use : Not for food, drug or household use

#### 1.3. Details of the supplier of the safety data sheet

LabChem Inc  
 Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court  
 Zelenople, PA 16063 - USA  
 T 412-826-5230 - F 724-473-0647  
[info@labchem.com](mailto:info@labchem.com) - [www.labchem.com](http://www.labchem.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Not classified

#### 2.2. Label elements

Not classified as a hazardous chemical.

#### 2.3. Other hazards

Other hazards not contributing to the classification : None.

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	GHS-US classification
Water (Main constituent)	(CAS No) 7732-18-5	100	Not classified

Full text of hazard classes and H-statements : see section 16

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).  
 First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest. Adverse effects not expected from this product.  
 First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Adverse effects not expected from this product.  
 First-aid measures after eye contact : Rinse immediately with plenty of water. Adverse effects not expected from this product.  
 First-aid measures after ingestion : Do NOT induce vomiting. Obtain emergency medical attention. Adverse effects not expected from this product.

# Water

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

### 5.2. Special hazards arising from the substance or mixture

No additional information available

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use.

Incompatible products : Metallic sodium.

Incompatible materials : Sources of ignition. Direct sunlight.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation.

Personal protective equipment : Gloves. Safety glasses.



Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

# Water

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Respiratory protection : None necessary.  
 Other information : Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
 Color : Colorless  
 Odor : None.  
 Odor threshold : No data available  
 pH : 7  
 Melting point : 0 °C  
 Freezing point : No data available  
 Boiling point : 100 °C  
 Critical temperature : 374.1 °C  
 Critical pressure : 218.3 atm  
 Flash point : No data available  
 Relative evaporation rate (butyl acetate=1) : No data available  
 Flammability (solid, gas) : Non flammable.  
 Vapor pressure : 17.535 mm Hg  
 Vapor pressure at 50 °C : 92.51 mm Hg  
 Relative vapor density at 20 °C : No data available  
 Relative density : 1  
 Specific gravity / density : 0.99823 g/ml  
 Molecular mass : 18 g/mol  
 Solubility : Soluble in acetic acid. Soluble in acetone. Soluble in ammonia. Soluble in ammonium chloride. Soluble in ethanol. Soluble in glycerol. Soluble in hydrochloric acid. Soluble in methanol. Soluble in nitric acid. Soluble in sulfuric acid. Soluble in sodium hydroxide solution. Soluble in propylene glycol.  
 Log Pow : No data available  
 Auto-ignition temperature : No data available  
 Decomposition temperature : No data available  
 Viscosity, kinematic : 1.004 cSt  
 Viscosity, dynamic : 1.002 cP  
 Explosion limits : No data available  
 Explosive properties : Not applicable.  
 Oxidizing properties : None.

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Extremely high or low temperatures.

#### 10.5. Incompatible materials

Metallic sodium.

#### 10.6. Hazardous decomposition products

Hydrogen. oxygen.

# Water

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Likely routes of exposure : Skin and eye contact  
 Acute toxicity : Not classified

Water (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg
ATE US (oral)	90000.000 mg/kg body weight

Skin corrosion/irritation : Not classified  
 pH: 7  
 Serious eye damage/irritation : Not classified  
 pH: 7  
 Respiratory or skin sensitization : Not classified  
 Germ cell mutagenicity : Not classified  
 Carcinogenicity : Not classified  
 (Based on available data, the classification criteria are not met)  
 Reproductive toxicity : Not classified  
 Specific target organ toxicity – single exposure : Not classified  
 Specific target organ toxicity – repeated exposure : Not classified  
 Aspiration hazard : Not classified  
 Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

Water (7732-18-5)	
Persistence and degradability	Not established.

#### 12.3. Bioaccumulative potential

Water (7732-18-5)	
Bioaccumulative potential	Not established.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Other information : No other effects known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT  
 Not regulated



# Water

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

#### 15.2. International regulations

##### CANADA

##### Water (7732-18-5)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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##### EU-Regulations

No additional information available

##### National regulations

No additional information available

#### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

### SECTION 16: Other information

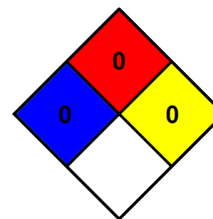
Revision date : 01/25/2017

Other information : None.

NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



##### HMIS III Rating

Health : 0 Minimal Hazard - No significant risk to health

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : A

A - Safety glasses

SDS US LabChem

*Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.*



**Founded, Based and  
MADE IN THE U.S.A.**

Rapid Setting Cement Based  
Hydraulic Cement

**DESCRIPTION:**

AQUA PLUG's instant setting can be achieved in 2-3 minutes to stop pressure leaks in concrete and masonry surfaces. This rapid set allows AQUA PLUG to bond mechanically and chemically to saturate surfaces.

**03 61 00**  
Cement Grouting



**USES AND APPLICATIONS:**

- Stops Streaming Leaks in Concrete
- Anchors Bolts and Rods
- Seals Cracks and Floor and Wall Junctions

**03 50 00**  
Concrete Repair



**PRODUCT FEATURES:**

- Non-Metallic, Non Rusting
- Fast Setting
- Stops water leaks under pressure
- Easy to mix
- Single component
- Expands as it sets
- Waterproof
- Chloride and metal free mortar
- Freeze-Thaw stable
- Can be shaved and molded to desired contour
- Once set, AQUA PLUG is resistant to hydrostatic pressure

**SUBSTRATE PREPARATION:**

Slightly undercut the hole to be plugged and enlarge small cracks to permit embedment of material. Recommended minimum size of hole or crack is 0.75 in. wide and deep. Remove all loose dirt or aggregate. Surfaces should be SSD (Saturated Surface Dry) prior to placement.

**MIXING:**

Mix AQUA PLUG with clean potable water. Add just enough to make a putty consistency. Water ratio is 3 parts powder to 1 part water. AQUA PLUG is to be mixed in small quantities only due to rapid set time.

**APPLICATION:**

Apply AQUA PLUG with trowel or by hand to seeping area starting at top of crack. Hold firmly in place exerting pressure with hand or trowel for about 3 minutes to be sure AQUA PLUG does not wash out under water pressure. If small leaks should appear around the patched area, sprinkle AQUA PLUG in a dry form onto the leaking area, or mix a small batch of AQUA PLUG to a soft putty consistency and hold firmly over area till set.

**STOP STREAMING WATER:** Begin at top of crack and place AQUA PLUG in firmly using some force to place into opening. Continue to apply pressure with trowel or by hand until material sets and active water has stopped.

**SEALING CRACKS, FLOOR /WALL JUNCTIONS:** Firmly push AQUA PLUG into crack or hole to form a cove at the floor and wall junction.

**ANCHORING BOLTS OR RODS:** Drill or chisel a hole deep enough to hold bolt or rod securely and at least 1/2" space on all sides of bolt or rod. Position the bolt in the hole, use a small pointed trowel and fill in AQUA PLUG completely around bolt. Smooth off surface with trowel while supporting bolt with hand for about one minute until it does not sag.

**PACKAGING:**

50 lb. Pail

**COLOR:**

Light Grey

**SHELF LIFE:**

12 months

**REQUIRED TOOLS:**

Safety Gloves  
Mixing Bucket  
Trowel

**MIXING RATIO:**

3 Parts Powder to 1 Part Water

**WEIGHT / CUBIC FOOT:**

130 ft.<sup>3</sup> Installed

**APPROXIMATE COVERAGE:**

50 lb. Unit Yields: 0.50 ft.<sup>3</sup>

2 1/2 pounds will fill a crack 3/4" wide by 3/4" deep and 75" in length

**APPLICATION TEMPERATURE**

**RANGE:**

35° - 95°F

**SET TIME:**

2-3 Minutes

**COMPRESSIVE STRENGTH  
(ASTM C 109)**

4 Hours	2000 psi	13.8 MPa
1 Day	4000 psi	31.0 MPa
28 Days	5500 psi	37.9 MPa

## APPLICATION NOTES:

1. It is the responsibility of the contractor to review the complete technical datasheets of CMP products referenced above as more detailed information may be required. The information provided above acts only as a general guideline and may vary based on jobsite conditions.
2. Apply AQUA PLUG immediately after mixing.
3. Do not mix more than can be placed within 2 minutes.
4. Not for use in moving cracks.
5. Not for use as a surface applied material or coating.
6. Wet substrate prior to placement keeping the material wet for a minimum of 15 minutes.

### **Eligible LEED credits : 5**

Recycled Content (MR 4.1 & 4.2)  
2 Points

Regional Materials (MR 5.1 & 5.2)  
2 Points

Low Emitting Materials (EQ 4.1)  
1 Point

### **STORAGE:**

Store in cool dry place. Tightly seal package and do not expose to sun.

### **FLAMMABILITY: (ASTM E-84)**

Flame Spread: -0-

Fuel Contribution: -0-

Smoke Development: -0-

### **VOLATILE ORGANIC COMPOUNDS**

0 g/l

### **CLEAN UP:**

Clean tools with water immediately after use or by mechanical means once dry.

### **HEALTH AND SAFETY:**

Always refer to the Safety Data Sheet (SDS) prior to using this product for full Health, Safety and Handling guidelines. SDS sheets are available by calling 267.522.8000 or you can visit [www.cmpsp.com](http://www.cmpsp.com)

For Professional Use Only

**KEEP OUT OF REACH OF CHILDREN**





## 1. Identification

**Product identifier** HERCULES Johni Rings  
**Other means of identification**  
**Product code** 7620E  
**Synonyms** ohni Ring and ohni Ring Plus  
**Recommended use** Sealing toilet bowl to flange  
**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

**Company Name**  
**Address**

**Telephone**  
**E-mail**  
**Transport Emergency**  
**Emergency First Aid**  
**Contact person**

## 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards** Not classified.  
**OSHA defined hazards** Not classified.

### Label elements

**Hazard symbol** None.  
**Signal word** None.  
**Hazard statement** The mixture does not meet the criteria for classification.

### Precautionary statement

**Prevention** Observe good industrial hygiene practices.  
**Response** Wash hands after handling.  
**Storage** Store away from incompatible materials.  
**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
Slack Wax	64742-61-6	90-100

Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.  
**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.  
**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.  
**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water et as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Stop the flow of material, if this is without risk. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

<b>Appearance</b>	
<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Color</b>	Tan.

<b>Odor</b>	None.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not determined
<b>Flash point</b>	212.0 F ( 100.0 C)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	0.84 +/- 0.05
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>VOC (Weight %)</b>	0 g/l

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	No adverse effects due to inhalation are expected.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

<b>Acute toxicity</b>	Not available.
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization****Respiratory sensitization** Not a respiratory sensitizer.**Skin sensitization** This product is not expected to cause skin sensitization.**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.**Specific target organ toxicity - single exposure** Not classified.**Specific target organ toxicity - repeated exposure** Not classified.**Aspiration hazard** Not an aspiration hazard.**12. Ecological information****Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.**Persistence and degradability** No data is available on the degradability of this product.**Bioaccumulative potential** No data available.**Mobility in soil** No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.**13. Disposal considerations****Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.**Local disposal regulations** Dispose in accordance with all applicable regulations.**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.**14. Transport information****DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.**15. Regulatory information****US federal regulations** This product is an article pursuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard.**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**Hazard categories** Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
United States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

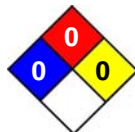
A Yes indicates this product complies with the inventory requirements administered by the governing country(s).

A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 23-April-2015  
**Revision date** -  
**Version #** 01  
**HMIS® ratings** Health: 0  
 Flammability: 0  
 Physical hazard: 0

**NFPA ratings**



**Disclaimer**

HCC Holdings Inc. an Oatey Affiliate cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.





## Safety Data Sheet

### 1 – Product Identifier & Identity for the Chemical

<p><b>Manufacturer:</b> WD-40 Company Australia Pty Ltd</p> <p><b>Address:</b> 41 Rawson Street (Level 2, Suite 23) Epping NSW, 2121, Australia</p> <p><b>Telephone:</b> <b>Information:</b> +61 2 9868 2200 <b>Emergency only:</b> 1800 024 973</p> <p><b>Poisons Information Centre:</b> <b>Australia:</b> 13 11 26 <b>New Zealand:</b> 0800 764 766</p> <p><b>New Zealand Contact Details:</b> <b>Name:</b> Eproducts New Zealand Limited <b>Address:</b> 7D Orbit Drive Albany New Zealand <b>Telephone:</b> <b>Information:</b> 09 916 6750</p>	<p><b>Product Name:</b> WD-40 Aerosol</p> <p><b>Chemical Name:</b> Mixture</p> <p><b>Product Use:</b> Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion</p> <p><b>Restriction on Use:</b> None Identified</p> <p><b>SDS Date Of Preparation:</b> 23 July 2015</p>
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### 2 – Hazards Identification

#### Classification of the Hazardous Chemical (in accordance with WHS Regulation)

Health	Environmental	Physical
Aspiration Toxicity Category 1 Eye Irritant Category 2A Skin Irritant Category 2	Aquatic Acute Toxicity Category 3 Aquatic Chronic Toxicity Category 3	Flammable Aerosol Category 1 Gas Under Pressure: Compressed Gas

#### Label Elements



Contains: Naphtha (petroleum), hydrodesulfurized heavy; 1,2,4-Trimethyl benzene; 1,3,5-Trimethyl benzene; ylene, Mixed Isomers; and Surfactant

#### Danger!

H222 Extremely flammable aerosol.  
H280 Contains gas under pressure: may explode if heated.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

**Prevention**

P210 Keep away from heat, sparks, open flames and hot surfaces.-No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Pressurized container: Do not pierce or burn, even after use.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves and eye protection.

**Response**

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P332+P313 If skin irritation occurs: Get medical attention.

P362 Take off contaminated clothing and wash it before reuse.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical attention.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor or physician.

P331 Do NOT induce vomiting.

**Storage**

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 C/122 F.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

**Disposal**

P501 Dispose of contents and container in accordance with local and national regulations.

**Other Hazards that do not Result in Classification:** None

**3 - Composition/Information on Ingredients**

Ingredient	CAS #	Weight Percent	Substance Classification
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	60%	Flam. Liq. Cat 3 (H226) Asp. Tox. Cat 1 (H304)
Distillates, Hydrotreated Heavy Paraffinic (contains <3% DMSO)	64742-54-7	10-20%	Not Hazardous
Non-Hazardous Ingredients	Mixture	10%	Not Hazardous
1,2,4-Trimethyl benzene	95-63-6	<10%	Flam. Liq. Cat 3 (H226) Acute Tox. Cat 4 (H332) Eye Irrit. Cat 2 (H319) Skin Irrit. Cat 2 (H315) STOT SE Cat 3 (H335) Aq. Chronic Cat 2 (H411)
1,3,5-Trimethyl benzene	108-67-8	<10%	Flam. Liq. Cat 3 (H226) STOT SE Cat 3 (H335) Aq. Chronic Cat 2 (H411)
ylene, Mixed Isomers	1330-20-7	<10%	Flam. Liq. Cat 3 (H226) Acute Tox. Cat 4 (H312) Acute Tox. Cat 4 (H332) Skin Irrit. Cat 2 (H315)
Carbon Dioxide	124-38-9	2-4%	Not Hazardous
Surfactant	Proprietary	<1%	Eye Dam. Cat 1 (H318) Skin Irrit. Cat 2 (H315)

See Section 16 for full text of GHS Classification and H phrases

#### 4 – First Aid Measures

**Ingestion (Swallowed):** Aspiration Hazard. DO NOT induce vomiting. Call a Poisons Information Center (phone 13 11 26 from anywhere in Australia or 0800 764 766 in New Zealand) immediately.

**Eye Contact:** Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.

**Skin Contact:** Wash with soap and water. If irritation develops and persists, get medical attention.

**Inhalation (Breathing):** If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

**Most Important Symptoms:** May cause eye, skin, and respiratory irritation. Prolonged skin contact may cause drying of the skin. Inhalation may cause headache, dizziness, nausea and other symptoms of central nervous system depression. Accidental ingestion may cause gastrointestinal effects with irritation, nausea, vomiting, dizziness, coma and death. Aspiration into the lungs during ingestion or vomiting may cause lung damage.

**Indication of Immediate Medical Attention and Special Treatment, if Needed:** Immediate medical attention is required for ingestion.

#### 5 – Fire Fighting Measures

**Suitable Extinguishing Media:** Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.

**Specific Hazards Arising from the Chemical:** Extremely flammable aerosol. Contents under pressure. Keep away from ignition source and open fire. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. A vapor and air mixture can create an explosion hazard in confined spaces.

**Special Protective Equipment and Precautions for Fire-Fighters:** Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Use shielding to protect against bursting containers. Cool fire-exposed containers with water.

#### 6 – Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

**Environmental Precautions:** Avoid releases to the environment. Report spills to authorities as required.

**Methods and Materials for Containment/Cleanup:** Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly.

#### 7 – Handling and Storage

**Precautions for Safe Handling:** Avoid contact with eyes and skin. Avoid breathing vapors or aerosols. Intentional misuse by deliberately concentrating vapors and inhaling can be harmful or fatal. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

**Conditions for Safe Storage, including any incompatibilities:** Store in a cool, dry ventilated area away from incompatible materials. Protect from physical damage. Do not store in direct sunlight, near open flames or above temperatures greater than 50 °C.

**8 – Exposure Controls /Personal Protection**

<b>Chemical</b>	<b>Occupational Exposure Limits</b>	<b>Biological Limit Value</b>
Naphtha (petroleum), hydrodesulfurized heavy	350 mg/m <sup>3</sup> TWA (manufacturer recommended) 5 mg/m <sup>3</sup> TWA AU OEL (as oil mist, refined mineral) 5 mg/m <sup>3</sup> TWA, 10 mg/m <sup>3</sup> STEL N OEL (as oil mist, mineral) 5 mg/m <sup>3</sup> TWA ACGIH TLV (inhalable) (as mineral oil)	None Established
Distillates, Hydrotreated Heavy Paraffinic	5 mg/m <sup>3</sup> TWA AU OEL (as oil mist, refined mineral) 5 mg/m <sup>3</sup> TWA, 10 mg/m <sup>3</sup> STEL N OEL (as oil mist, mineral) 5 mg/m <sup>3</sup> TWA ACGIH TLV (inhalable) (as mineral oil)	None Established
Non-Hazardous Ingredients	None Established	None Established
1,2,4-Trimethyl benzene	25 ppm TWA ACGIH TLV/AU/N OEL (as Trimethyl benzene, all isomers)	None Established
1,3,5-Trimethyl benzene	25 ppm TWA ACGIH TLV/AU/N OEL (as Trimethyl benzene, all isomers)	None Established
ylene, Mixed Isomers	80 ppm TWA, 150 ppm STEL AU OEL 50 ppm TWA N OEL 100 ppm TWA, 150 ppm STEL ACGIH TLV	Methylhippuric acids in urine, End of shift, 1.5 g/g creatinine.
Carbon Dioxide	5000 ppm TWA, 30000 ppm STEL ACGIH TLV/AU/N OEL	None Established
Surfactant	None Established	None Established

**The Following Controls are Recommended for Normal Consumer Use of this Product**

**Appropriate Engineering Controls:** Use in a well-ventilated area.

**Personal Protection:**

**Eye Protection:** Avoid eye contact. Always spray product away from your face.

**Skin Protection:** Avoid prolonged or repeated skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

**Respiratory Protection:** None needed for normal use with adequate ventilation.

**For Bulk Processing or Workplace Use the Following Controls are Recommended**

**Appropriate Engineering Controls:** Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

**Personal Protection:**

**Eye Protection:** Safety goggles recommended where eye contact is possible.

**Skin Protection:** Wear chemical resistant gloves.

**Respiratory Protection:** None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear an approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

**Work/Hygiene Practices:** Eye wash facilities should be available. Wash hands after handling.

**Other Protective Equipment:** None required.

## 9 – Physical and Chemical Properties

Appearance and Odor:	Aerosol spray. Pleasant odor.	Partition Coefficient of n-octanol/water:	Not determined
Odor Threshold:	Not determined	Auto-ignition temperature:	Not determined
pH:	Not determined	Decomposition Temperature:	Not determined
Melting/Freezing Point:	Not applicable	Viscosity:	Not determined
Boiling Point / Range:	162-192 C (324-378 F) (Concentrate)	Specific Heat Value:	Not determined
Flash Point:	41-42 C (106-108 F) (Concentrate)	Particle Size:	Not applicable
Evaporation Rate (Butyl Acetate = 1):	Not determined	VOC:	49.5%
Flammability (solid, gas):	Not applicable	Percent Volatile:	78%
Flammable Limits:	LEL 0.7% UEL 7.0% (Concentrate)	Saturated Vapor Concentration:	Not determined
Vapor Pressure:	724 kPa @ 21 C (69.8 F)	Release of invisible flammable vapors and gases:	Yes
Vapor Density (air = 1):	1	Aerosol Protection Level (NFPA 30B):	3
Relative Density (Water = 1):	Not determined	Solubility:	Insoluble in water

## 10 – Stability and Reactivity

**Reactivity:** Non-reactive

**Chemical Stability:** Stable under normal storage conditions.

**Possibility of Hazardous Reactions:** Will not occur.

**Conditions to Avoid:** Avoid extreme heat, flames and other sources of ignition. Avoid physical damage to aerosol can.

**Incompatible Materials:** Strong oxidizers.

**Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide.

## 11 – Toxicological Information

### Health Hazards:

**Ingestion:** Swallowing is an unlikely route of exposure for an aerosol product. Swallowing large amounts may produce gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

**Eye Contact:** Liquid sprayed into eyes may cause irritation. May cause redness, stinging, swelling, and tearing.

**Skin Contact:** May produce mild irritation. Prolonged and/or repeated contact may cause defatting with possible dermatitis.

**Inhalation:** Mist or vapor can irritate the throat and lungs. High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

**Chronic Exposure:** None known.

**Medical Conditions Aggravated by Exposure:** Preexisting eye, skin and respiratory conditions may be aggravated by exposure.

### Acute Toxicity Values:

Naphtha (petroleum), hydrodesulfurized heavy: Oral rat LD50- 5000 mg/kg; Skin rabbit LD50- 3160 mg/kg.

Distillates, Hydrotreated Heavy Paraffinic: Oral rat LD50- 15 gm/kg

Non-Hazardous Ingredients: No toxicity data available

1, 2, 4-Trimethyl benzene: Oral rat LD50 3400-6000 mg/kg; Skin rabbit LD50 - 3160 mg/kg

1, 3, 5-Trimethyl benzene: Inhalation rat LC50- 24000 mg/m<sup>3</sup>/4hr  
 ylene, Mixed Isomers: Oral rat LD50 – 4300 mg/kg; Inhalation rat LC50 – 6350 ppm/4hr; Skin  
 rabbit LD50- 1700 mg/kg  
 Surfactant: Oral rat LD50- 3000 mg/kg

**Skin Corrosion/Irritation:** No data available for mixture. Based on the ingredients, 1, 2, 4-Trimethyl benzene and ylene, this product is classified as a skin irritant.

**Serious Eye Damage/Irritation:** No data available for mixture. Based on the ingredients, 1, 2, 4-Trimethyl benzene and Surfactant, this product is classified as an eye irritant.

**Respiratory or Skin Sensitization:** This product is not expected to cause sensitization.

**Germ Cell Mutagenicity:** None of the components have been found to be mutagenic.

**Carcinogenicity:** None of the components are listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, US OSHA or the EU CLP.

**Reproductive Toxicity:** None of the components are known to cause adverse reproductive effects.

**Specific Target Organ Toxicity:**

**Single Exposure:** No data available.

**Repeated Exposure:** No data available.

**Aspiration Hazard:** No data available. Based on the ingredients, this product is expected to present an aspiration hazard and may be harmful if the contents are swallowed.

## 12 – Ecological Information

### Ecotoxicity:

Naphtha (petroleum), hydrodesulfurized heavy: 96 hr LC50 Fathead minnow – 8.2 mg/L; 96 hr LC50 Crangon Crangon – 4.3 mg/L

1, 2, 4-Trimethyl benzene: 96 hr LC50 Fathead minnows – 7.72 mg/L; 48 hr EC50 Daphnia magna – 6.14 mg/L

1, 3, 5-Trimethyl benzene: 96 hr LC50 Goldfish - 12.52 mg/L; 48 hr LC50 Daphnia magna- 6.0 mg/L

ylene, Mixed Isomers: 96 hr LC50 Goldfish- 36.81 mg/L; 96 hr LC50 Rainbow trout – 13.5 mg/L

This product has been classified as harmful to the aquatic environment with long lasting effects based on the components. Releases to the environment should be avoided.

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other Adverse Effects:** None Known

## 13 - Disposal Considerations

**Safe Handling and Disposal Method:** Aerosol containers should not be punctured, compacted in home trash compactors or incinerated.

**Disposal of Contaminated Packaging:** Empty containers may be disposed of through normal waste management options.

**Environmental Regulations:** Dispose of all waste product, absorbents, and other materials in accordance with applicable Federal, state and local regulations.

## 14 – Transportation Information

**IMDG Shipping Name:** Aerosols

**IMDG Hazard Class:** 2.1

**UN Number:** UN1950

**Marine Pollutant:** No

**IATA Shipping Name:** Aerosols, Flammable

**IATA Hazard Class:** 2.1

**UN Number:** UN1950

**ADG Shipping Name:** Aerosols

**ADG Hazard Class:** 2.1

**UN Number:** UN1950

**Hazchem (Emergency Action) Code:** 2YE

**Special Precautions for User:** WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

### 15 – Regulatory Information

**Montreal Protocol (Ozone Depleting Substances):** None present

**The Stockholm Convention (Persistent Organic Pollutants):** None present

**The Rotterdam Convention (Prior Informed Consent):** Not applicable

**Basel Convention:** Not applicable

**International Convention for the Prevention of Pollution from Ships (MARPOL):** 1, 2, 4-Trimethyl benzene and 1, 3, 5-Trimethyl benzene are listed.

**Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP):** Not applicable

**Australian Inventory of Chemical Substances:** All of the components of this product are listed on the AICS inventory.

#### **New Zealand:**

**HSNO Approval Number:** HSR002515

*Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Good for transport purposes.*

HSNO Hazard Classes: 2.1.2A, 6.1E, 6.3A, 6.4A, 9.1C, 9.1D

New Zealand Inventory: All the ingredients comply with the HSNO regulations.

### 16 – Other Information

REVISION DATE: 23 July 2015

SUPERSEDES: 11 July 2014

Prepared By: Industrial Health Safety Consultants, Inc.

Full Text of GHS Classification and H Phrases from Section 3:

Acute Tox. Cat 4 Acute Toxicity Category 4

Aq. Chronic Cat 2 Aquatic Chronic Toxicity Category 2

Asp. Tox. Cat 1 Aspiration Toxicity Category 1

Eye Dam. Cat 1 Eye Damage Category 1

Eye Irrit. Cat 2 Eye Irritant Category 2

Flam. Liq. Cat 3 Flammable Liquid Category 3

Skin Irrit. Cat 2 Skin Irritant Category 2

STOT SE Cat 3 Specific Target Organ Toxicity Single Exposure Category 3

H226 Flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.  
 H411 Toxic to aquatic life with long lasting effects.

List of Abbreviations or Acronyms:

- ACGIH American Conference of Industrial Hygienists
- ADG Australian Dangerous Goods
- AICS Australian Inventory of Chemical Substances
- AU Australia
- EC Effective Concentration
- EU European Union
- GHS Globally Harmonized System of Classification and Labelling of Chemicals
- HSNO Hazardous Substances and New Organisms
- IARC International Agency of Research on Cancer
- IATA International Air Transport Association
- IMDG International Maritime Dangerous Goods
- LC Lethal Concentration
- LD Lethal Dosage
- LEL Lower Explosive Limit
- NTP National Toxicology Program
- OEL Occupational Exposure Limits
- US OSHA United States Occupational Safety and Health Administration
- PEL Permissible Exposure Limit
- SDS Safety Data Sheet
- STEL Short Term Exposure Limit
- TWA Time-Weighted Average
- UEL Upper Explosive Limit
- VOC Volatile Organic Compounds
- WHS Work Health and Safety

REVIEWED BY:           I. Kowalski                                TITLE: Manager Regulatory Affairs

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# SAFETY DATA SHEET

## 1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: White Distilled Vinegar  
 PRODUCT NUMBER: V886  
 COMPANY INFO: *PhytoTechnology Laboratories*  
 PO Box 12205, Shawnee, KS 66282-2205  
 Phone: 1-888-749-8682 or 1-913-341-5343; Fax: 1-888-449-8682 or 1-913-341-5442  
 www.phytotechlab.com

EMERGENCY PHONE NUMBER: 1-800-535-5053 - US Only  
 1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by *PhytoTechnology Laboratories* are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

## 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification:

H315 - Skin irritation (Category 2)  
 H319 - Eye irritation (Category 2A)

GHS Label elements, including hazard and precautionary statements:

Pictogram:



Signal Word: **Warning**

Hazard Statements:

H315 – Causes skin irritation.  
 H319 – Causes serious eye irritation.

Precautionary Statements:

P280 – Wear protective gloves/protective clothing/eye protection/face protection.  
 P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: 5% Acetic Acid  
 CAS No.: 8028-52-2  
 Formula: C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>  
 Molecular Weight: 60.06 g/mol

Ingredient	CAS Number	Percent	Hazardous
White Distilled Vinegar	8028-52-2	~100%	No OSHA limit levels established

## 4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. <b>Get medical attention.</b>
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. <b>Get medical attention.</b>
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. <b>Get medical attention if irritation persists.</b>
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. <b>Get medical attention if irritation persists.</b>

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

## 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.
Special Protective Equipment and Precaution for Firefighters:	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.
Hazardous Combustion Products:	May emit toxic fumes under fire conditions.
Toxic Gases Produced:	Carbon dioxide and carbon monoxide.

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid breathing vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas.

Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Method of Containment and Cleanup:	Clean-up personnel should wear proper protective equipment and clothing. Contain spilled material and do not let product enter drains. Soak up with inert absorbent material and place in a suitable, closed container for disposal in accordance with all local, state/provincial, and national requirements. Ventilate the area if necessary.

## 7. HANDLING AND STORAGE

Precaution for Safe Handling:	Avoid contact with skin and eyes. Avoid aerosols. Avoid incompatible substances. Wash thoroughly after use.
Conditions for Safe Storage:	Keep in a tightly closed container and store in a cool, dry, and well-ventilated area.
Incompatibilities:	Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols
Recommended Storage Temperature:	Room Temperature

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Occupational Exposure Limits:	Acetic acid (64-19-7) – TWA Value: 10 ppm, 25 mg/m <sup>3</sup>
ACGIH Threshold Limit Values (TLVs):	Acetic acid (64-19-7) – TWA Value: 10 ppm

Engineering Controls: Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Eye/Face Protection:	Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.
Skin Protection:	Protective gloves
Body Protection:	Lab coat
Respiratory Protection:	Respiratory protection is not required. Use N95 (US) or type P1 (EN 143) dust mask where dust level is nuisance. A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless, clear liquid	
pH:	No data available	
Solubility:	Miscible with Water	
Melting Point:	No data available	
Vapor Density:	No data available	
Vapor Pressure:	No data available	
Odor:	Slight pungent odor	
Odor Threshold:	No data available	
Viscosity:	No data available	
Relative Density:	No data available	
Evaporation Rate:	No data available	
Initial Boiling Point and Boiling Range:	244°F, 118°C	
Flammability (solid, gas):	No data available	
Partition coefficient: n-octanol/water):	No data available	
Auto-ignition Temperature:	No data available	
Decomposition Temperature:	No data available	
Flash Point (Closed Cup):	No data available	
Flammable Limits:	Upper (%) – No data available	Lower (%) – No data available

## 10. STABILITY AND REACTIVITY

Reactivity:	No data available	
Chemical Stability:	Stable under normal conditions of use – Material may be slightly flammable	
Possibility of Hazard Reactions:	Will not occur	
Conditions to Avoid:	Excessive heat, flame, incompatibles	
Incompatibles Materials:	Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols	
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide	

## 11. TOXICOLOGICAL INFORMATION

Toxicity:	LD <sub>50</sub> (Oral-Rat)(mg/Kg):	No data available
	LD <sub>50</sub> (Oral-Mouse)(mg/Kg):	No data available
	LD <sub>50</sub> (Dermal-Rabbit)(mg/Kg):	No data available

Carcinogenicity:	NTP:	No
	IARC:	No
	Z List:	No
	OSHA Reg:	No
Reproductive Toxicity:	No data available	
Symptoms Associated with Overexposure:	Irritation, itching, gastrointestinal upset, possible mutagenic and reproductive effects, dermatitis, weight loss, liver impairment, convulsions, breathing difficulties	
Specific Target Organ Toxicity:	Single Exposure:	No data available
	Repeated Exposure:	No data available
Target Organs:	Liver, eyes	
Medical Conditions Aggravated By Exposure:	Ulcer	
Routes of Entry:	Ingestion, inhalation, skin and eye contact	
NIOSH/RTECS NO:	Not listed	

***The toxicological properties of this product have not been thoroughly investigated***

## 12. ECOLOGICAL INFORMATION

Ecotoxicity:	No data available
Persistence and Degradability:	No data available
Bioaccumulative Potential:	No data available
Mobility in Soil:	No data available
Other Adverse Effects:	No data available

## 13. DISPOSAL CONSIDERATION

Disposal Procedure:	Dispose in accordance with all applicable federal, state, and local environmental regulations.
EPA Hazardous Waste Number:	No data available

## 14. TRANSPORT INFORMATION

Domestic (D.O.T.):	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	UN/NA:	N/A
	Labels:	N/A

### International:

IMDG:	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	UN/NA:	N/A
	Labels:	N/A
IATA:	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	UN/NA:	N/A
	Labels:	N/A

**15. REGULATORY INFORMATION**

TSCA:	Yes
SARA TITLE III:	
Section 302 (EHS) Ingredients:	No
Section 313 Ingredients:	No
Section 304 (EHS/CERCLA) Ingredients:	No
Section 311/312 Hazard:	Acute Health Hazard, Chronic Health Hazard
Massachusetts Right to Know Components:	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right to Know Components:	CAS No.: 64-19-7 Acetic acid
New Jersey Right to Know Components:	CAS No.: 64-19-7 Acetic acid CAS No.: 7732-18-5 Water
California Prop. 65 Components:	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**16. OTHER INFORMATION**

HMIS Rating:	<b>Health Hazard</b>	<b>Chronic Health Hazard</b>	<b>Flammability</b>	<b>Physical Hazard</b>
	3	*	0	0
NFPA Rating:	<b>Health Hazard</b>	<b>Fire Hazard</b>	<b>Reactivity Hazard</b>	<b>Special Hazard</b>
	3	0	0	

\*Chronic Hazard: Chronic (long-term) health effects may result from repeated overexposure.

***PhytoTechnology Laboratories®* provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The above information is intended to be used only as a guide to the appropriate precautionary handling of this material by a properly trained person. *PhytoTechnology Laboratories®* shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.**

Revision Date: 20 May 15

**Safety Data Sheet**

classification according to Canadian Hazardous Products Regulation

**WINDEX® ORIGINAL GLASS CLEANER**

Version 1.0

Print Date 06/20/2017

Revision Date 05/23/2017

SDS Number 350000014153

**1. PRODUCT AND COMPANY IDENTIFICATION****Product information**

**Product name** : WINDE ORIGINAL GLASS CLEANER

**Recommended use** : Hard Surface Cleaner

**Restrictions on use** : Use only as directed on label

**Manufacturer, importer, supplier** : S.C. ohnson and Son, Limited  
1 Webster Street  
Brantford ON N3T 5R1

**Telephone** : +1-800-558-5566

**Emergency telephone number** : 24 Hour Transport Medical Emergency Phone (866) 231-5406  
24 Hour International Emergency Phone (952) 852-4647  
24 Hour Canadian Transport Emergency Phone (CANUTEC)  
(613) 996-6666

**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture****Globally Harmonized System (GHS) Classification**

This product does not meet the criteria for classification in any hazard class according to the Canadian Hazardous Products Regulation

**Labelling****Precautionary statements**

**Other hazards** : None identified

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

This product does not contain hazardous chemicals at or above a reportable level as defined by Canadian Hazardous Products Regulation

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For additional information on product ingredients, see [www.whatsinsidesc ohnson.com](http://www.whatsinsidesc ohnson.com).

**4. FIRST AID MEASURES****Description of first aid measures**

**Eye contact** : No special requirements

**Skin contact** : No special requirements

**Inhalation** : No special requirements.

**Ingestion** : No special requirements

**Most important symptoms and effects, both acute and delayed**

Eyes : No adverse effects expected when used as directed.

Skin effect : No adverse effects expected when used as directed.

Inhalation : No adverse effects expected when used as directed.

Ingestion : No adverse effects expected when used as directed.

**Indication of any immediate medical attention and special treatment needed**

See Description of first aid measures unless otherwise stated.

**5. FIREFIGHTING MEASURES**

**Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Specific hazards during firefighting** : Container may melt and leak in heat of fire.

**Safety Data Sheet**

classification according to Canadian Hazardous Products  
Regulation

**WINDEX® ORIGINAL GLASS CLEANER**

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**Further information** : Fight fire with normal precautions from a reasonable distance. Standard procedure for chemical fires. Wear full protective clothing and positive pressure self-contained breathing apparatus.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions** : Wash thoroughly after handling.

**Environmental precautions** : Outside of normal use, avoid release to the environment.

**Methods and materials for containment and cleaning up** : Dike large spills.  
Clean residue from spill site.

**7. HANDLING AND STORAGE****Handling**

**Precautions for safe handling** : Avoid contact with skin, eyes and clothing.  
For personal protection see section 8.  
KEEP OUT OF REACH OF CHILDREN AND PETS.

**Advice on protection against fire and explosion** : Normal measures for preventive fire protection.

**Storage**

**Requirements for storage areas and containers** : Keep container closed when not in use.

**Other data** : Stable under normal conditions.



**Safety Data Sheet**

classification according to Canadian Hazardous Products Regulation

**WINDEX® ORIGINAL GLASS CLEANER**

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Revision Date 05/23/2017

SDS Number 350000014153

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Occupational Exposure Limits**

ACGIH or OSHA exposure limits have not been established for this product or reportable ingredients unless noted in the table above.

**Personal protective equipment**

**Respiratory protection** : No special requirements.

**Hand protection** : No special requirements.

**Eye protection** : No special requirements.

**Skin and body protection** : No special requirements.

**Hygiene measures** : Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Form** : liquid

**Color** : blue

**Odour** : floral

**Odour Threshold** : Test not applicable for this product type

**pH** : 10.7  
at (25 C)

**Melting point/freezing point** : 0 C

**Safety Data Sheet**

classification according to Canadian Hazardous Products  
Regulation

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Revision Date 05/23/2017

SDS Number 350000014153

<b>Initial boiling point and boiling range</b>	: 100 C
<b>Flash point</b>	: does not flash
<b>Evaporation rate</b>	: Test not applicable for this product type
<b>Flammability (solid, gas)</b>	: Does not sustain combustion.
<b>Upper/lower flammability or explosive limits</b>	: Test not applicable for this product type
<b>Vapour pressure</b>	: Calculated 31.7 hPa
<b>Vapour density</b>	: Test not applicable for this product type
<b>Relative density</b>	: 1.00 g/cm <sup>3</sup> at 25 C
<b>Solubility(ies)</b>	: soluble
<b>Partition coefficient: n-octanol/water</b>	: Test not applicable for this product type
<b>Auto-ignition temperature</b>	: Test not applicable for this product type
<b>Decomposition temperature</b>	: Heating can release hazardous gases.
<b>Viscosity, dynamic</b>	: similar to water
<b>Viscosity, kinematic</b>	: similar to water

**Safety Data Sheet**

classification according to Canadian Hazardous Products Regulation

**WINDEX® ORIGINAL GLASS CLEANER**

Version 1.0

Print Date 06/20/2017

Revision Date 05/23/2017

SDS Number 350000014153

<b>Oxidizing properties</b>	:	Test not applicable for this product type	:
<b>Volatile Organic Compounds Total VOC (wt. %)*</b>	:	0.2 % - additional exemptions may apply as defined by US Federal and State Consumer Product Regulations	:
<b>Other information</b>	:	None identified	:

**10. STABILITY AND REACTIVITY**

<b>Reactivity</b>	:	No dangerous reaction known under conditions of normal use.
<b>Chemical stability</b>	:	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	:	If accidental mixing occurs and toxic gas is formed, exit area immediately. Do not return until well ventilated.
<b>Conditions to avoid</b>	:	Direct sources of heat.
<b>Incompatible materials</b>	:	Do not mix with bleach or any other household cleaners. Strong bases
<b>Hazardous decomposition products</b>	:	Thermal decomposition can lead to release of irritating gases and vapours.

**11. TOXICOLOGICAL INFORMATION**

<b>Acute oral toxicity</b>	:	LD50	5000 mg/kg
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**Safety Data Sheet**

classification according to Canadian Hazardous Products  
Regulation

**WINDEX® ORIGINAL GLASS CLEANER**

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**Acute inhalation toxicity** : LC50 10 mg/L**Acute dermal toxicity** : LD50 5000 mg/kg

<b>GHS Properties</b>	<b>Classification</b>	<b>Routes of entry</b>
Acute toxicity	No classification proposed	Oral
Acute toxicity	No classification proposed	Dermal
Acute toxicity	No classification proposed	Inhalation - Dust and Mist
Acute toxicity	No classification proposed	Inhalation - Vapour
Acute toxicity	No classification proposed	Inhalation - Gas
Skin corrosion/irritation	No classification proposed	-
Serious eye damage/eye irritation	No classification proposed	-
Skin sensitisation	No classification proposed	-
Respiratory sensitisation	No classification proposed	-
Germ cell mutagenicity	No classification proposed	-
Carcinogenicity	No classification proposed	-
Reproductive toxicity	No classification proposed	-
Specific target organ toxicity - single exposure	No classification proposed	-
Specific target organ toxicity - repeated exposure	No classification proposed	-
Aspiration hazard	No classification proposed	-

**Aggravated Medical** : None known.

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**Condition****12. ECOLOGICAL INFORMATION**

**Product** : The product itself has not been tested.

**Toxicity**

The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

**No environmental data required.**

**No environmental data required.**

**Other adverse effects** : None known.

**13. DISPOSAL CONSIDERATIONS**

Consumer may discard empty container in trash, or recycle where facilities exist.

**14. TRANSPORT INFORMATION**

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

**Land transport**

Not classified as dangerous in the meaning of transport regulations.

**Sea transport**

Not classified as dangerous in the meaning of transport regulations.

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**Air transport**

Not classified as dangerous in the meaning of transport regulations.

**15. REGULATORY INFORMATION**

- Notification status** : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
- Notification status** : All ingredients of this product comply with the New Substances Notification requirements under the Canadian Environmental Protection Act (CEPA).
- California Prop. 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
- Canada Regulations** : This product has been classified in accordance with the hazard criteria of the Hazardous Products Act and Regulations.

**16. OTHER INFORMATION****HMIS Ratings**

<b>Health</b>	1
<b>Flammability</b>	0
<b>Reactivity</b>	0

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**NFPA Ratings**

<b>Health</b>	1
<b>Fire</b>	0
<b>Reactivity</b>	0
<b>Special</b>	-

This information is being provided in accordance with Canada's Workplace Hazard Material Information System. The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled consumer use.

**Further information**

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by	SC Johnson Global Safety Assessment Regulatory Affairs (GSARA)
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# Peak Windshield Wash & Deicer -20 °F

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : Peak Windshield Wash Deicer -20 F

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Windshield Wash Fluid

#### 1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC  
4065 Commercial Ave.  
Northbrook, IL 60062 - USA  
T (847) 559-2000  
[www.oldworldind.com](http://www.oldworldind.com)

#### 1.4. Emergency telephone number

Emergency number : (800) 424-9300; (703) 527 3887 (International)  
Chemtrec

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Flam. Liq. 2 H225  
Acute Tox. 4 (Oral) H302  
Acute Tox. 3 (Dermal) H311  
Acute Tox. 4 (Inhalation:dust,mist) H332  
STOT SE 1 H370

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS02

GHS06

GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapor  
H302+H332 - Harmful if swallowed or if inhaled  
H311 - Toxic in contact with skin  
H370 - Causes damage to organs (May cause blindness if swallowed)

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P241 - Use explosion-proof electrical, lighting, ventilating equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P260 - Do not breathe mist, spray, vapors  
P264 - Wash affected areas thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear personal protective equipment as required  
P301+P310 - If swallowed: Immediately call doctor/physician or poison center . Rinse Mouth  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing



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P314 - Get medical advice/attention if you feel unwell  
 P361+P364 - Take off immediately all contaminated clothing and wash it before reuse  
 P370+P378 - In case of fire: Use Foam, Sand, Dry powder, Carbon dioxide to extinguish  
 P403+P235 - Store in a well-ventilated place. Keep cool  
 P405 - Store locked up  
 P501 - Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	% by wt	GHS-US classification
methanol	(CAS No) 67-56-1	< 33	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek immediate medical advice. Allow the victim to rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
First-aid measures after skin contact	: Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Remove clothing before washing. Consult a doctor/medical service.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Obtain emergency medical attention. Rinse mouth. Never give anything by mouth to an unconscious person.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/in uries after inhalation	: May cause irritation of the nose and throat. High concentrations may cause acute central nervous system depression characterized by headaches, dizziness, nausea and confusion.
Symptoms/in uries after skin contact	: Prolonged exposure to skin may cause skin irritation experienced as burning, dryness, cracking and redness.
Symptoms/in uries after eye contact	: May cause severe irritation.
Symptoms/in uries after ingestion	: May cause nausea, abdominal pain, headache, shortness of breath, visual impairment and blindness. Severe poisoning can lead to coma and death.
Chronic symptoms	: ON CONTINUOUS/REPEATED E POSURE/CONTACT: Red skin. Dry skin. Skin rash/inflammation. Headache. Feeling of weakness. Disturbed tactile sensibility. Visual disturbances. Sleeplessness. Gastrointestinal complaints. Cardiac and blood circulation effects.

### 4.3. Indication of any immediate medical attention and special treatment needed

This product contains methanol which can cause intoxication and depression of the central nervous system. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: ABC powder. Foam. Dry powder. Carbon dioxide. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapor. Vapors are heavier than air and may travel along the ground or may be moved by ventilation.
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Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Special protective equipment for fire fighters : Wear positive pressure self-contained breathing apparatus (SCBA). Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. Do not breathe vapor or mist. Wear appropriate respirator when ventilation is inadequate.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Keep upwind. Mark the danger area.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Dam up the liquid spill. Plug the leak, cut off the supply. Try to reduce evaporation. Take account of toxic/corrosive precipitation water. Dilute combustible/toxic gases/vapors with water spray.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : In use, may form flammable vapor-air mixture.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures : Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Use explosion-proof electrical, lighting, ventilating equipment. Ground/bond container and receiving equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources, hot surfaces, open flames, sparks. Keep container closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

Incompatible products : Keep away from strong acids, strong bases and oxidizing agents.

Incompatible materials : Sources of ignition.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

methanol (67-56-1)		
ACGIH	ACGIH TWA (ppm)	200 ppm (Skin)
ACGIH	ACGIH STEL (ppm)	250 ppm (Skin)
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
OSHA	OSHA PEL (TWA) (mg/m )	260 mg/m (Skin)

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### methanol (67-56-1)

OSHA	OSHA PEL (TWA) (ppm)	200 ppm (Skin)
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#### 8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Safety glasses.



Hand protection : Wear protective gloves.  
 Eye protection : Chemical goggles or safety glasses.  
 Skin and body protection : Wear suitable protective clothing.  
 Respiratory protection : In case of inadequate ventilation wear respiratory protection. Wear appropriate mask.  
 Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
 Color : Blue  
 Odor : alcohol odor  
 Odor threshold : No data available  
 Relative evaporation rate (butylacetate=1) : Greater than n-butyl acetate  
 Freezing point : No data available  
 Boiling point : 80 - 83 C (177 - 181 F)  
 Flash point : 33 C (92 F)  
 Auto-ignition temperature : No data available  
 Decomposition temperature : No data available  
 Flammability (solid, gas) : No data available  
 Vapor pressure : 43 mm Hg @ 20 C  
 Relative vapor density at 20 C : Heavier than air  
 Specific Gravity : 0.96 @ 20 C  
 Solubility : Water: Complete  
 Log Pow : No data available  
 Log Kow : No data available  
 Viscosity, kinematic : No data available  
 Viscosity, dynamic : No data available  
 Explosive properties : No data available  
 Oxidizing properties : No data available  
 Explosive limits : 6 - 36 vol %

### 9.2. Other information

VOC content : < 33.00 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Sources of ignition.

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### 10.5. Incompatible materials

Keep away from strong acids, strong bases and oxidizing agents.

### 10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Dermal: Toxic in contact with skin. Inhalation:dust,mist: Harmful if inhaled.

methanol (67-56-1)	
LD50 oral rat	5,000.00 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rabbit	15,800.00 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	85.00 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	64,000.00 ppm/4h (Rat; Literature study)
ATE US (dermal)	15,800.00 mg/kg bodyweight
ATE US (gases)	700.00 ppmv/4h
ATE US (vapors)	3.00 mg/l/4h
ATE US (dust,mist)	0.50 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Causes damage to organs (May cause blindness if swallowed) .

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/in uries after inhalation : May cause irritation of the nose and throat. High concentrations may cause acute central nervous system depression characterized by headaches, dizziness, nausea and confusion.

Symptoms/in uries after skin contact : Prolonged exposure to skin may cause skin irritation experienced as burning, dryness, cracking and redness.

Symptoms/in uries after eye contact : May cause severe irritation.

Symptoms/in uries after ingestion : May cause nausea, abdominal pain, headache, shortness of breath, visual impairment and blindness. Severe poisoning can lead to coma and death.

Chronic symptoms : ON CONTINUOUS/REPEATED E POSURE/CONTACT: Red skin. Dry skin. Skin rash/inflammation. Headache. Feeling of weakness. Disturbed tactile sensibility. Visual disturbances. Sleeplessness. Gastrointestinal complaints. Cardiac and blood circulation effects.

## SECTION 12: Ecological information

### 12.1. Toxicity

methanol (67-56-1)	
LC50 fish 1	15,400.00 mg/l (96 h; Lepomis macrochirus; Lethal)
EC50 Daphnia 1	10,000.00 mg/l (48 h; Daphnia magna; Lethal)
LC50 fish 2	10,800.00 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	24,500.00 mg/l (48 h; Daphnia magna; Locomotor effect)
Threshold limit other aquatic organisms 1	6600 mg/l (16 h; Pseudomonas putida)
Threshold limit algae 1	530 mg/l (192 h; Microcystis aeruginosa)
Threshold limit algae 2	8000 mg/l (168 h; Scenedesmus quadricauda)

### 12.2. Persistence and degradability

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methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.42 g O <sub>2</sub> /g substance
ThOD	1.50 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.80 % ThOD

### 12.3. Bioaccumulative potential

methanol (67-56-1)	
BCF fish 1	< 10.00 (72 h; Leuciscus idus)
BCF fish 2	1.00 (72 h; Cyprinus carpio; Blood)
Log Pow	-0.77 (Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

methanol (67-56-1)	
Surface tension	0.02 N/m (20 °C)

### 12.5. Other adverse effects

Effect on ozone layer	: No known effect on the ozone layer
Effect on global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations	: Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.
Ecology - waste materials	: Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT

Transport document description	: UN1993 Flammable liquids, n.o.s. (Methanol), 3, III
UN-No.(DOT)	: 1993
DOT NA no.	: UN1993
Proper Shipping Name (DOT)	: Flammable liquids, n.o.s. Methanol
Transport hazard class(es) (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT)	: 3 - Flammable liquid



DOT Symbols	: G - Identifies PSN requiring a technical name
Packing group (DOT)	: III - Minor Danger
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

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Other information : In inner packaging no more than 5.0 L: Proper Shipping Name: Limited Quantity of Class III Per 49 CFR Part 173.10 (PG III, inner packaging no more than 5.0L).

### ADR

No additional information available

### Transport by sea

UN-No. (IMDG) : 1993  
 Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N.O.S. (Methanol)  
 Class (IMDG) : 3 - Flammable liquids  
 Packing group (IMDG) : III - substances presenting low danger  
 Limited quantities (IMDG) : In Non-Bulk quantities with inner packaging no more than 5.0L: Proper Shipping Name: Dangerous Goods in Limited Class 3 (Windshield Wash Containing Methanol) Packages or pallets must be marked Dangerous Goods in Limited Quantities of Class 3 Outer Package cannot weigh more than 30 kg.

### Air transport

UN-No. (IATA) : 1993  
 Proper Shipping Name (IATA) : FLAMMABLE LIQUID, N.O.S. (Methanol)  
 Class (IATA) : 3 - Flammable Liquids  
 Packing group (IATA) : III - Minor Danger  
 Instruction passenger - Limited quantities (ICAO) : Y309 (Max qty. per package 10L) Special Provision A3

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Peak Windshield Wash & Deicer -20 °F	
EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed
SARA Section 302 Threshold Planning Quantity (TPQ)	None
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	33 % (Methanol CAS # 67-56-1)
methanol (67-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb(s)

### 15.2. International regulations

#### CANADA

#### WHMIS Classification



Class B Division 2 -  
Flammable Liquid

Class D Division 1  
Subdivision A - Very  
toxic material  
causing immediate  
and serious toxic  
effects

#### EU-Regulations

No additional information available

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

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### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

### National regulations

#### Peak Windshield Wash & Deicer -20 °F

DSL (Canada): The intentional ingredients of this product are listed  
 ECL (South Korea): The intentional ingredients of this product are listed.  
 EINECS (Europe): The intentional ingredients of this product are listed  
 ENCS (Japan): The intentional ingredients of this product are listed

### 15.3. US State regulations

#### methanol (67-56-1)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	Yes	No	No	

#### methanol (67-56-1)

U.S. - Massachusetts - Right To Know List  
 U.S. - New Jersey - Right to Know Hazardous Substance List  
 U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

Full text of H-phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 1	Specific target organ toxicity — single exposure, Category 1
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled
H332	Harmful if inhaled
H370	Causes damage to organs

NFPA health hazard

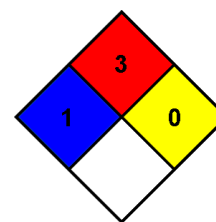
: 1 - Exposure could cause irritation but only minor residual in body even if no treatment is given.

NFPA fire hazard

: 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health

: 2 Moderate Hazard - Temporary or minor in body may occur

Flammability

: 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 °F (22 °C) and boiling points above 100 °F (37 °C), as well as liquids with flash points between 73 °F (22 °C) and 100 °F (37 °C). (Classes IB - IC)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection

A - Safety glasses

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SDS GHS US (GHS HazCom 2012) OWI

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