



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ Safest Stripper™ Paint and Varnish Remover, Catalog Numbers 10101 and 10103

**MANUFACTURER:** 3M

**DIVISION:** Construction and Home Improvement Markets

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

**EMERGENCY PHONE:** 1-800-364-3577 or (651) 737-6501 (24 hours)

**Issue Date:** 09/12/13

**Supersedes Date:** 10/29/10

**Document Group:** 11-1756-3

**Product Use:**

Intended Use: paint and varnish remover

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
WATER	7732-18-5	65 - 75
DIMETHYL ADIPATE	627-93-0	20 - 30
SMECTITE	12199-37-0	1 - 5
DIMETHYL GLUTARATE	1119-40-0	1 - 5

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Odor, Color, Grade:** off white, slight ester odor.

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:**

#### 3.2 POTENTIAL HEALTH EFFECTS

**Eye Contact:**

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

**Skin Contact:**

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

**Inhalation:**

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

**Ingestion:**

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperature

*No Data Available*

Flash Point

*Not Applicable*

Flammable Limits(LEL)

*No Data Available*

Flammable Limits(UEL)

*No Data Available*

### 5.2 EXTINGUISHING MEDIA

Material will not burn.

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Not applicable.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

## **6.2. Environmental precautions**

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a closed container approved for transportation by appropriate authorities.

## **Clean-up methods**

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Seal the container.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

# **SECTION 7: HANDLING AND STORAGE**

## **7.1 HANDLING**

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid breathing of vapors, mists or spray. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Avoid contact with oxidizing agents.

## **7.2 STORAGE**

Store away from acids. Store away from oxidizing agents.

# **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

## **8.1 ENGINEERING CONTROLS**

Use with appropriate local exhaust ventilation. Provide local exhaust ventilation at transfer points. Use in a well-ventilated area. If exhaust ventilation is not available, use appropriate respiratory protection. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

## **8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

### **8.2.1 Eye/Face Protection**

Avoid eye contact with vapors, mists, or spray.

### **8.2.2 Skin Protection**

Avoid skin contact. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

If irritation of the skin occurs, discontinue use. The use of gloves is recommended for removal of the stripper and paint residue if prolonged contact may occur. Wash thoroughly after use.

### **8.2.3 Respiratory Protection**

Avoid breathing of vapors, mists or spray. Consult the current 3M Respirator Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

### **8.2.4 Prevention of Swallowing**

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

### 8.3 EXPOSURE GUIDELINES

<u><b>Ingredient</b></u>	<u><b>Authority</b></u>	<u><b>Type</b></u>	<u><b>Limit</b></u>	<u><b>Additional Information</b></u>
DIMETHYL ADIPATE	CMRG	TWA, as Dimethyl Esters	1.5 ppm	
DIMETHYL GLUTARATE	CMRG	TWA, as Dimethyl Esters	1.5 ppm	

#### SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Odor, Color, Grade:</b>	off white, slight ester odor.
<b>General Physical Form:</b>	Liquid
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	<i>Not Applicable</i>
<b>Flammable Limits(LEL)</b>	<i>No Data Available</i>
<b>Flammable Limits(UEL)</b>	<i>No Data Available</i>
<b>Boiling Point</b>	>=100 °C
<b>Density</b>	<i>No Data Available</i>
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Vapor Pressure</b>	Approximately 8 mmHg [ <i>Details: CONDITIONS: 77 degrees F</i> ]
<b>Specific Gravity</b>	1.00 - 1.03 [ <i>Ref Std: WATER=1</i> ]
<b>pH</b>	Approximately 7
<b>Melting point</b>	<i>No Data Available</i>
<b>Solubility In Water</b>	<i>No Data Available</i>
<b>Evaporation rate</b>	Approximately 1 [ <i>Ref Std: WATER=1</i> ] [ <i>Details: CONDITIONS: Estimated, based on formulation.</i> ]
<b>Volatile Organic Compounds</b>	Approximately 216 g/l [ <i>Test Method: South Cost Air Qual Mgmt Dist</i> ]
<b>Kow - Oct/Water partition coef</b>	<i>No Data Available</i>
<b>Percent volatile</b>	94 - 97 % weight
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>No Data Available</i>
<b>Viscosity</b>	60000.0 - 110000.0 centipoise

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

#### Materials and Conditions to Avoid:

##### 10.1 Conditions to avoid

Temperatures above the boiling point



## 10.2 Materials to avoid

Strong acids  
Strong bases  
Strong oxidizing agents

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

## Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified

## SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Incinerate in an industrial or commercial facility in the presence of a combustible material.

**EPA Hazardous Waste Number (RCRA):** Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

## SECTION 14: TRANSPORT INFORMATION

### ID Number(s):

70-0707-9597-9, 70-0711-8727-5

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## SECTION 15: REGULATORY INFORMATION

### US FEDERAL REGULATIONS

Contact 3M for more information.

### **311/312 Hazard Categories:**

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

## **STATE REGULATIONS**

Contact 3M for more information.

## **CHEMICAL INVENTORIES**

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information.

## **INTERNATIONAL REGULATIONS**

Contact 3M for more information.

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

## **SECTION 16: OTHER INFORMATION**

### **NFPA Hazard Classification**

**Health: 1 Flammability: 0 Reactivity: 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: 1 Flammability: 0 Reactivity: 0 Protection: B**

Hazardous Material Identification System (HMIS®) 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® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

**Reason for Reissue:** The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

### **Revision Changes:**

Section 1: Product name information was modified.  
Section 1: Product use information information was modified.  
Section 16: Disclaimer (second paragraph) information was modified.  
Section 10: Hazardous decomposition or by-products table information was modified.  
Section 16: HMIS explanation information was modified.  
Page Heading: Product name information was modified.  
Section 15: Inventories information information was modified.  
Section 9: Density information information was modified.  
Section 9: Vapor density value information was modified.  
Section 9: Vapor pressure value information was modified.  
Section 9: Boiling point information information was modified.  
Section 5: Flammable limits (UE) information information was modified.  
Section 5: Flammable limits (LEL) information information was modified.  
Section 5: Autoignition temperature information information was modified.  
Section 5: Flash point information information was modified.  
Section 9: Property description for optional properties information was modified.

Section 9: Specific gravity information information was modified.  
Section 9: pH information information was modified.  
Section 9: Melting point information information was modified.  
Section 9: Solubility in water value information was modified.  
Section 9: Flash point information information was modified.  
Section 9: Flammable limits (LEL) information information was modified.  
Section 9: Flammable limits (UEL) information information was modified.  
Section 9: Autoignition temperature information information was modified.  
Section 14: ID Number(s) Template 1 information was modified.  
Section 2: Ingredient table information was modified.  
Section 8: Exposure guidelines ingredient information information was modified.  
Section 6: 6.2. Environmental precautions heading information was modified.  
Section 6: 6.1. Personal precautions, protective equipment and emergency procedures heading information was modified.  
Section 16: Web address information was added.  
Section 1: Address information was added.  
Copyright information was added.  
Company logo information was added.  
Telephone header information was added.  
Company Telephone information was added.  
Section 1: Emergency phone information information was added.  
Section 1: Emergency phone information information was deleted.  
Company Logo information was deleted.  
Copyright information was deleted.  
Section 16: Web address heading information was deleted.  
Section 1: Address line 1 information was deleted.  
Section 1: Address line 2 information was deleted.

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ Polystyrene Foam Insulation Spray Adhesive 78

**MANUFACTURER:** 3M

**DIVISION:** Industrial Adhesives and Tapes Division

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

**EMERGENCY PHONE:** 1-800-364-3577 or (651) 737-6501 (24 hours)

**Issue Date:** 07/05/11

**Supersedes Date:** 06/14/11

**Document Group:** 16-5983-8

**Product Use:**

Intended Use: aerosol adhesive

Specific Use: aerosol insulation adhesive

### SECTION 2: INGREDIENTS

<b><u>Ingredient</u></b>	<b><u>C.A.S. No.</u></b>	<b><u>% by Wt</u></b>
Dimethyl ether	115-10-6	25 - 35
Nonvolatile components N.J.T.S. Reg No. 04499600-6463P	Trade Secret	15 - 25
Cyclohexane	110-82-7	10 - 20
1,1-Difluoroethane	75-37-6	10 - 20
Hydrotreated light naphtha (Petroleum)	64742-49-0	5 - 10
Acetone	67-64-1	1 - 5
2,3-Dimethylbutane	79-29-8	1 - 5
2-Methylpentane	107-83-5	1 - 5
3-Methylpentane	96-14-0	1 - 5
Petroleum naphtha	64742-48-9	1 - 5
Neohexane	75-83-2	< 2.0
Hexane	110-54-3	< 0.5

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Aerosol

**Odor, Color, Grade:** clear, sweet fruity odor

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

## 3.2 POTENTIAL HEALTH EFFECTS

### **Eye Contact:**

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

### **Skin Contact:**

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

### **Inhalation:**

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Intentional concentration and inhalation may be harmful or fatal.

May be absorbed following inhalation and cause target organ effects.

### **Ingestion:**

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

### **Target Organ Effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause:

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. Get immediate medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## 4.2 NOTE TO PHYSICIANS

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperature	No Data Available
Flash Point	-50 °F [Test Method: Tagliabue Closed Cup]
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
OSHA Flammability Classification:	Class IA Flammable Liquid

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available.

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation and personal protective equipment. Evacuate unprotected and untrained personnel from the hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area. **WARNING !** A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. If it can be done safely, place the leaking containers in an exhaust hood or well-ventilated area. **WARNING !** To avoid problems with pressure buildup, slowly leaking pressurized aerosol cans should not be placed in sealed containers. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

### 6.2. Environmental precautions

Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

#### Clean-up methods

Contain spill, using absorbent if necessary. Collect spilled material with non-sparking tools. Clean up residue. Place depressurized cans and clean up wastes in a metal container approved for transportation. Seal the container. Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Cover spill area with a fire-

extinguishing foam. An aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## **SECTION 7: HANDLING AND STORAGE**

### **7.1 HANDLING**

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Do not pierce or burn container, even after use. No smoking while handling this material. Do not spray near flames or sources of ignition. Avoid breathing of vapors, mists or spray. Aerosol container contains flammable gas under pressure. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Vapors may ignite explosively. May cause flash fire. Prevent build-up of vapors - open all windows and doors. Maintain vapor concentrations below recommended exposure limits. Use only with cross-ventilation. Without adequate ventilation, vapors may settle in low-lying areas. Keep away from heat, sparks, and open flame. Do not smoke or ignite matches, lighters, etc. Avoid contact with oxidizing agents.

### **7.2 STORAGE**

Store away from acids. Store away from heat. Store out of direct sunlight. Store away from oxidizing agents.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 ENGINEERING CONTROLS**

Use with appropriate local exhaust ventilation. Use with functioning spray booth or local exhaust. Do not use in a confined area or areas with little or no air movement. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment. Do not use in a confined area or areas with little or no air movement. If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate to control vapor concentrations below recommended exposure limits and/or control spray or mist.

### **8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

#### **8.2.1 Eye/Face Protection**

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields

.

#### **8.2.2 Skin Protection**

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Nitrile Rubber

.

#### **8.2.3 Respiratory Protection**

Avoid breathing of vapors, mists or spray.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with

OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges

. Select and use respiratory protection to prevent an inhalation exposure based on the results of an exposure assessment. Consult with your respirator manufacturer for selection of appropriate types of respirators. Organic Vapor cartridges may have short service life.

### 8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

## 8.3 EXPOSURE GUIDELINES

<u><b>Ingredient</b></u>	<u><b>Authority</b></u>	<u><b>Type</b></u>	<u><b>Limit</b></u>	<u><b>Additional Information</b></u>
1,1-Difluoroethane	AIHA	TWA	2700 mg/m3	
1,1-Difluoroethane	CMRG	TWA	1000 ppm	
Acetone	ACGIH	TWA	500 ppm	
Acetone	ACGIH	STEL	750 ppm	
Acetone	OSHA	TWA	2400 mg/m3	
Cyclohexane	ACGIH	TWA	100 ppm	
Cyclohexane	OSHA	TWA	1050 mg/m3	
Dimethyl ether	AIHA	TWA	1880 mg/m3	
Dimethyl ether	CMRG	TWA	1000 ppm	
Hexane	ACGIH	TWA	50 ppm	Skin Notation*
Hexane	OSHA	TWA	1800 mg/m3	
Petroleum naphtha	3M	TWA	100 ppm	
Petroleum naphtha	CMRG	TWA	300 ppm	
Hydrotreated light naphtha (Petroleum)	CMRG	TWA	50 ppm	

\* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

### SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Specific Physical Form:</b>	Aerosol
<b>Odor, Color, Grade:</b>	clear, sweet fruity odor
<b>General Physical Form:</b>	Liquid
<b>Autoignition temperature</b>	No Data Available
<b>Flash Point</b>	-50 °F [Test Method: Tagliabue Closed Cup]
<b>Flammable Limits(LEL)</b>	No Data Available
<b>Flammable Limits(UEL)</b>	No Data Available
<b>Density</b>	0.761 g/ml
<b>Vapor Density</b>	>=2.57 [Ref Std: AIR=1]
<b>Specific Gravity</b>	0.761 [Ref Std: WATER=1]
<b>pH</b>	No Data Available
<b>Melting point</b>	No Data Available
<b>Solubility in Water</b>	Nil
<b>Evaporation rate</b>	1.90 [Ref Std: ETHER=1]
<b>Hazardous Air Pollutants</b>	<=0.4 % weight [Test Method: Calculated]



Volatile Organic Compounds	<=582 g/l [ <i>Details:</i> European VOC content only]
Kow - Oct/Water partition coef	No Data Available
Percent volatile	Approximately 80 % weight
VOC Less H2O & Exempt Solvents	<=472 g/l [ <i>Test Method:</i> calculated SCAQMD rule 443.1]
VOC Less H2O & Exempt Solvents	<=3.95 lb/gal [ <i>Test Method:</i> calculated SCAQMD rule 443.1]
VOC Less H2O & Exempt Solvents	<=62.1 % [ <i>Test Method:</i> calculated per CARB title 2]
Viscosity	Not Applicable
Solids Content	21.5 %

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:**

**10.1 Conditions to avoid**

Heat

**10.2 Materials to avoid**

Strong oxidizing agents

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

### Hazardous Decomposition or By-Products

#### Substance

Aldehydes  
Hydrocarbons  
Carbon monoxide  
Carbon dioxide

#### Condition

During Combustion  
During Combustion  
During Combustion  
During Combustion

## SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Vent cylinder or pressurized container in an operating exhaust hood or remote area.

A qualified person should adjust the release rate so gas concentration in ducts is less than 20% of the lower explosive limit (LEL). The LEL is the lowest concentration that can propagate (spread) a flame. A qualified person should adjust the release rate so gas

concentration in ducts is less than 20% of the lower explosive limit (LEL). The LEL is the lowest concentration that can propagate (spread) a flame. Incinerate in a permitted hazardous waste incinerator. For quantities <10 lbs. (5 kg):

As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable)

**Since regulations vary, consult applicable regulations or authorities before disposal.**

## **SECTION 14: TRANSPORT INFORMATION**

**ID Number(s):**

62-4951-4950-2, 62-4951-4955-1, 62-4951-4975-9

**For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.**

## **SECTION 15: REGULATORY INFORMATION**

### **US FEDERAL REGULATIONS**

Contact 3M for more information.

#### **311/312 Hazard Categories:**

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

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

<u><b>Ingredient</b></u>	<u><b>C.A.S. No</b></u>	<u><b>% by Wt</b></u>
Cyclohexane	110-82-7	10 - 20

### **STATE REGULATIONS**

Contact 3M for more information.

### **CHEMICAL INVENTORIES**

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. The components of this product are listed on the Canadian Domestic Substances List.

Contact 3M for more information.

### **INTERNATIONAL REGULATIONS**

Contact 3M for more information.

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

## **SECTION 16: OTHER INFORMATION**

#### **NFPA Hazard Classification**

**Health:** 2   **Flammability:** 4   **Reactivity:** 0   **Special Hazards:** None

**Aerosol Storage Code:** 3

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.

**Revision Changes:**

Section 3 and Section 9: General physical form information was modified.

Section 9: Property description for optional properties was modified.

**DISCLAIMER:** The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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**3M USA MSDSs are available at [www.3M.com](http://www.3M.com)**

## 1. Identification

Product Identifier: **Poly 74-Series Liquid Rubber Part A**  
**Poly 75-Series Liquid Rubber Part A**

Product Code(s): 74A; 75A

Use: Component for Polyurethane Mold Rubber. For Industrial/Professional use only.

Manufacturer: Polytek Development Corp.  
 55 Hilton St., Easton, PA 18042 USA

Phone Number: +1 610-559-8620 (9 a.m. to 5 p.m. EST)

Emergency Phone: CHEMTREC 800-424-9300 or  
 +1 703-527-3887

E-mail: [sds@polytek.com](mailto:sds@polytek.com)

## 2. Hazards Identification

### GHS Classification:

Acute Toxicity - Inhalation Category 4  
 Skin Irritation Category 2  
 Eye Irritation Category 2  
 Respiratory Sensitization Category 1  
 Skin Sensitization Category 1  
 Carcinogenicity Category 2  
 Specific Target Organ Toxicity Single Exposure Category 3  
 (Respiratory Irritation)

**Label Elements:** Danger!



### Hazard Phrases

H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335 May cause respiratory irritation.  
 H351 Suspected of causing cancer.

### Precautionary Phrases

P202 Do not handle until all safety precautions have been read and understood.  
 P261 Avoid breathing vapors or mists.  
 P264 Wash thoroughly after handling.  
 P280 Wear protective gloves, protective clothing, eye protection, and face protection.  
 P285 In case of inadequate ventilation, wear respiratory protection.  
 P362 Take off contaminated clothing and wash before reuse.  
 P302+352 IF ON SKIN: Wash with plenty of soap and water.  
 P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P304+340 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
 P308+313 IF exposed or concerned: Get medical attention.  
 P403+233 Store in a well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents and container to licensed, permitted incinerator, or other thermal destruction device in accordance with local and national regulations.

**Supplemental Information:** Individuals sensitized to isocyanates should discontinue use. Long-term overexposure to isocyanates may cause lung damage. This is one part of a two-part system. Read and understand the hazard information on part B before using.

## 3. Composition/Information on Ingredients

Chemical Name	CAS #	%
Toluene Diisocyanate	26471-62-5	≤2%
Polyether polyol-TDI prepolymer	9057-91-4	85-90%

## 4. First-Aid Measures

**Eye Contact:** Rinse thoroughly with water for at least 15 minutes, holding the eyelids open to be sure the material is washed out. Get prompt medical attention.

**Skin Contact:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before reuse. Discard items that cannot be decontaminated.

**Inhalation:** Remove person to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

**Most Important Symptoms/Effects:** Causes skin and eye irritation. Vapors or mists may cause respiratory irritation. May cause allergic skin and/or respiratory reaction in sensitized persons. Symptoms include skin rash, wheezing, shortness of breath and other asthma symptoms.

### Indication of Immediate Medical Attention/Special Treatment:

Immediate medical attention is required for asthmatic symptoms or serious inhalation exposures. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Persons sensitized to Diisocyanates should consult a physician before working with respiratory irritants or sensitizers.

## 5. Fire-Fighting Measures

**Extinguishing Media:** Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

**Specific Hazards:** Not classified as flammable or combustible. Product will burn under fire conditions.

**Special Protective Equipment & Precautions for Fire-Fighters:** Wear positive pressure, self-contained breathing apparatus and full-body protective clothing. Cool fire-exposed containers with water.

## 6. Accidental Release Measures

### Personal Precautions, Protective Equipment and Emergency

**Procedures:** Remove all ignition sources. Clear non-emergency personnel from the area. Ventilate area. Wear appropriate protective clothing to prevent eye and skin contact and respiratory protection.

**Methods and Materials for Containment and Cleanup:** Cover with an inert absorbent material and collect into an appropriate container for disposal. Do not seal the container since CO<sub>2</sub> is generated on contact with moisture and dangerous pressure buildup can occur. Decontaminate floor area with a mixture of water plus isopropyl alcohol (20%), household ammonia (10%), and detergent (2%).

## 7. Handling and Storage

**Safe Handling:** Avoid breathing vapors or mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use.

**Safe Storage:** Store indoors at temperatures between 55°F and 95°F (13°C and 35°C). Store in original, unopened containers. Protect from atmospheric moisture and water since TDI reacts with water to form CO<sub>2</sub> leading to potentially dangerous pressure build up in sealed containers.

## 8. Exposure Controls/Personal Protection

**Occupational Exposure Limits:** For TDI: 0.02 ppm (C) OSHA PEL; 0.005 ppm TWA ACGIH TLV; 0.02 ppm STEL ACGIH TLV. No other limits apply.

**Ventilation:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

**Respiratory Protection:** If needed, use an approved respirator with organic vapor cartridges. Respirator selection and use should be based on contaminant type, form and concentration. For higher exposures or in an emergency, use a supplied-air respirator.

**Skin Protection:** Wear impervious gloves, such as butyl rubber or nitrile rubber.

**Eye Protection:** Wear chemical safety goggles.

**Other Protective Measures:** Wear impervious clothing to prevent skin contact and contamination of personal clothing. An eye wash and washing facility should be available in the work area. Follow good Industrial Hygiene practices.

## 9. Physical and Chemical Properties

**Appearance:** Clear pale yellow to amber liquid

**Odor:** Pungent, slightly sweet

**Odor Threshold:** Not determined

**pH:** Not applicable

**Melting Point:** No data available

**Boiling Point:** No data available

**Flash Point:** >350°F (177°C) estimated

**Evap. Rate:** No data available

**Flamm. Limits:** No data available

**Vapor Pressure:** ≤0.01 mm Hg @ 25°C

**Vapor Density:** No data available

**Relative Density:** 1.05 @ 25°C

**Solubility:** Insoluble in water

**Partition Coefficient: n-octanol/Water:** Reacts with water

**Auto-Ignition Temp:** No data available

**Decomposition Temp:** No data available

**Viscosity:** 5,000-10,000 cP

## 10. Stability and Reactivity

**Reactivity:** Diisocyanates react with many materials and the rate of reaction increases with temperature. Reaction with water generates carbon dioxide and heat.

**Chemical Stability:** Stable under recommended conditions.

**Possibility of Hazardous Reactions:** Elevated temperatures can cause hazardous polymerization. Polymerization can be catalyzed by strong bases or water. Reaction with water generates carbon dioxide, and results in heat and pressure buildup in closed systems.

**Conditions to Avoid:** Avoid moisture and temperatures below 55°F (13°C) and above 95°F (35°C) to protect product integrity.

**Incompatible Materials:** Avoid contact with water, acids, bases, alcohols, strong oxidizers, and some metals (e.g., aluminum, zinc, brass, tin, copper).

**Hazardous Decomposition Products:** Possibly isocyanate vapor, carbon monoxide, nitrogen oxides, and traces of hydrogen cyanide.

## 11. Toxicological Information

**Eye Contact:** May cause moderate irritation. May cause temporary corneal injury.

**Skin Contact:** May cause irritation. Repeated skin contact may cause an allergic skin reaction. Animal studies indicate that skin contact with isocyanates may elicit respiratory sensitization.

**Inhalation:** At room temperature, vapors are minimal due to low volatility. Vapors or aerosols (e.g., generated during heating or spraying) may cause respiratory irritation and possibly pulmonary edema, or respiratory sensitization. For individuals sensitized to TDI, exposure may result in allergic respiratory reactions (e.g., coughing, wheezing, difficulty breathing).

**Ingestion:** Single oral dose toxicity is low. May cause adverse gastrointestinal effects.

**Chronic Health Effects:** Repeated or prolonged exposure to isocyanates may cause an allergic sensitization of the respiratory tract causing an asthma-like response upon re-exposure. Repeated overexposure to isocyanates has been associated with decreased lung function. Repeated or prolonged dermal contact with this product may cause allergic skin sensitization in some individuals. No test data. Product is not expected to be a mutagen or reproductive toxin.

**Acute Toxicity Values:** For TDI: Oral rat LD50 >2,000 mg/kg; Skin rabbit LD50 >9,400 mg/kg; Inhalation rat LC50 0.48 mg/L/1 hr (aerosol) (equivalent 0.24 mg/L/4 hr). Calculated ATE<sub>mix</sub> LC50 12.0 mg/L/4 hr.

**Carcinogenicity:** TDI is an IARC 2B carcinogen and classified as reasonably anticipated to be a human carcinogen by NTP. No other ingredients are classified as carcinogens by IARC, NTP, or OSHA.

## 12. Ecological Information

Poly 74A and 75A react with water to form insoluble polyureas.

Movement in the aquatic and terrestrial environment is expected to be limited. They are not readily biodegradable and are not expected to bioaccumulate.

## 13. Disposal Considerations

Dispose according to local, state and federal regulations. Upon exposure to moisture, product forms an inert, non-hazardous solid. In the U.S., this product is not a RCRA hazardous waste (per 40 CFR 261).

## 14. Transport Information

Not regulated for transport in any mode.

EMERGENCY SHIPPING: CHEMTREC, 800-424-9300 or +1-703-527-3887

## 15. Regulatory Information

**U.S. FEDERAL REGULATIONS:**

**CERCLA 103 Reportable Quantity:** Product is not subject to reporting under CERCLA. Some States have more stringent requirements. Report spills in accordance with local and state regulations.

**SARA TITLE III Section 311/312:** Acute Health, Chronic Health

**Section 313 Toxic Chemicals:** This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

Toluene Diisocyanate CAS 26471-62-5 ≤2%

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of this product are listed on TSCA.

**STATE REGULATIONS:**

**California Proposition 65:** This product contains a chemical known to the state of California to cause cancer. (TDI)

## 16. Other Information

**Training Advice:** Train personnel using this product in proper chemical handling, engineering controls and protective equipment.

**Recommended Uses and Restrictions:** This product is intended for industrial/professional use only.

**SDS Revision Notes:** Updated GHS format and merged 74A and 75A SDSs.

**Disclaimer:** The information contained herein is considered accurate; however, Polytek® Development Corp. makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.

## 1. Identification

Product Identifier: **Poly 74-20 Liquid Rubber Part B**  
**Poly 74-24 Liquid Rubber Part B**  
**Poly 74-29 Liquid Rubber Part B**  
**Poly 74-29 White Liquid Rubber Part B**  
**Poly 74-30 Liquid Rubber Part B**  
**Poly 74-30 Clear Liquid Rubber Part B**  
**Poly 74-30 HT Liquid Rubber Part B**  
**Poly 74-31 Liquid Rubber Part B**  
**Poly 74-41 Liquid Rubber Part B**  
**Poly 74-45 Liquid Rubber Part B**

Product Code(s): 74-20B, 74-24B, 74-29B, 74-29WHITEB,  
 74-30B, 74-30CLEARB, 74-30HTB, 74-31B,  
 74-41B, 74-45B

Use: Component for Polyurethane Mold Rubber. For Industrial/Professional use only.

Manufacturer: Polytek Development Corp.  
 55 Hilton St., Easton, PA 18042 USA

Phone Number: +1 610-559-8620 (9 a.m. to 5 p.m. EST)

Emergency Phone: CHEMTREC 800-424-9300 or  
 +1 703-527-3887

E-mail: [sds@polytek.com](mailto:sds@polytek.com)

## 2. Hazards Identification

### GHS Classification:

Specific Target Organ Toxicity - Repeated Exposure Category 2

Label Elements: Warning!



Contains Diethyltoluenediamine

### Hazard Phrases

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

### Precautionary Phrases

P260 Do not breathe vapors.  
 P314 Get medical advice if you feel unwell.  
 P501 Dispose of contents and container to licensed, permitted incinerator, or other thermal destruction device in accordance with local and national regulations.

Supplemental Information: None known.

This is one part of a two-part system. Read and understand the hazard information on Part A before using.

## 3. Composition/Information on Ingredients

Chemical Name	CAS #	%
Diethyltoluenediamine	68479-98-1	1-<3%

## 4. First-Aid Measures

**Eye Contact:** Rinse thoroughly with water, holding the eyelids open to be sure the material is washed out. Get medical attention if irritation persists.

**Skin Contact:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation persists.

**Inhalation:** Remove person to fresh air. Get medical attention if symptoms persist.

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

**Most Important Symptoms/Effects:** May cause mild eye and skin irritation. May be harmful if swallowed.

**Indication of Immediate Medical Attention/Special Treatment:** Immediate medical attention is not required.

## 5. Fire-Fighting Measures

**Extinguishing Media:** Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

**Specific Hazards:** Not classified as flammable or combustible. Product will burn under fire conditions.

**Special Protective Equipment & Precautions for Fire-Fighters:** Wear positive pressure, self-contained breathing apparatus and full-body protective clothing. Cool fire-exposed containers with water.

## 6. Accidental Release Measures

### Personal Precautions, Protective Equipment and Emergency

**Procedures:** Remove all ignition sources. Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors. Caution – spill area may be slippery.

**Methods and Materials for Containment and Cleanup:** Cover with an inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

## 7. Handling and Storage

**Safe Handling:** Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use.

**Safe Storage:** Store indoors at temperatures below 120°F (49°C). Store in original containers. Avoid getting moisture into containers. Keep containers tightly closed.

## 8. Exposure Controls/Personal Protection

**Occupational Exposure Limits:** None Established

**Ventilation:** Use with adequate general or local exhaust ventilation to minimize exposure levels.

**Respiratory Protection:** If needed, an approved respirator with organic vapor cartridges may be used. Respirator selection and use should be based on contaminant type, form and concentration. For higher exposures or in an emergency, use a supplied-air respirator.

**Skin Protection:** Wear impervious gloves, such as butyl rubber or nitrile rubber.

**Eye Protection:** Wear chemical safety goggles.

**Other Protective Measures:** Wear impervious clothing to prevent skin contact and contamination of personal clothing. An eye wash facility and washing facility should be available in the work area. Follow applicable regulations and good Industrial Hygiene practice.

## 9. Physical and Chemical Properties

**Appearance:** Liquid of varied colors

**Odor:** Slightly pungent

**Odor Threshold:** No data available

**pH:** Not applicable

**Melting Point:** No data available

**Boiling Point:** No data available

**Flash Point:** > 350°F (>177°C)

**Evaporation Rate:** No data available

**Upper/Lower Flammability Limits:** No data available

**Vapor Pressure:** <0.01 mm Hg @ 25°C

**Vapor Density:** No data available

**Relative Density:** ~1.0 @ 25°C  
**Solubility:** Slightly soluble in water  
**Partition Coefficient: n-octanol/Water:** No data available  
**Auto-Ignition Temp:** No data available  
**Decomposition Temp:** No data available  
**Viscosity:** 150-1500 cP

## 10. Stability and Reactivity

**Reactivity:** Not normally reactive.  
**Chemical Stability:** Stable under recommended conditions.  
**Possibility of Hazardous Reactions:** Reaction with strong oxidizers generates heat.  
**Conditions to Avoid:** Avoid excessive heat.  
**Incompatible Materials:** Avoid contact with strong oxidizers.  
**Hazardous Decomposition Products:** Thermal decomposition will generate oxides of carbon and nitrogen, organic acids, and other toxic organic compounds.

## 11. Toxicological Information

**Eye Contact:** May cause moderate irritation.  
**Skin Contact:** May cause mild irritation.  
**Inhalation:** Vapor and mists may cause mild respiratory irritation.  
**Ingestion:** Single oral dose toxicity is low. No harmful effects anticipated from ingesting small amounts incidental to normal handling. Large amounts may cause gastrointestinal effects.  
**Chronic Health Effects:** Not determined; but, based on laboratory animal studies, diethyltoluenediamine ingredient may cause damage to the pancreas, liver, thyroid and eyes through prolonged exposure.  
**Acute Toxicity Values:**  
For Diethyltoluenediamine: Oral rat LD50 738 mg/kg; Inhalation rat LC50 2.45 mg/L/1 hr; Dermal rabbit LD50 >2000 mg/kg  
**Skin Corrosion/Irritation:** Relevant components are not skin irritants.  
**Eye Damage/Irritation:** Relevant compounds are not eye irritants.  
**Respiratory Irritation:** Relevant components are not classified as respiratory irritants.  
**Respiratory Sensitization:** Relevant components are not respiratory sensitizers.  
**Skin Sensitization:** Components are not skin sensitizers.  
**Germ Cell Mutagenicity:** Components are not mutagens.  
**Carcinogenicity:** None of the components are carcinogens.  
**Reproductive Toxicity:** None of the components are reproductive toxins.  
**Specific Target Organ Toxicity:**  
Single Exposure: No data available  
Repeat Exposure: Diethyltoluenediamine may cause damage to the pancreas through repeated or prolonged exposure.

## 12. Ecological Information

**Ecotoxicity:** One ingredient is harmful to aquatic organisms: diethyltoluenediamine (Fish LC50 200 mg/L/48 hr; Daphnia EC50 0.5 mg/L/48 hr). But based on Additivity Formula, product is not classed as hazardous to the aquatic environment.  
**Persistence and Degradability:** Not readily biodegradable.  
**Bioaccumulative Potential:** Not expected to bioaccumulate.  
**Mobility in Soil:** No data available.

## 13. Disposal Considerations

Dispose according to local, state and federal regulations.

## 14. Transport Information

Not regulated for transport by any mode.  
EMERGENCY SHIPPING: CHEMTREC, 800-424-9300 or +1-703-527-3887

## 15. Regulatory Information

### U.S. FEDERAL REGULATIONS:

**CERCLA 103 Reportable Quantity:** This product is not subject to reporting under CERCLA. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

### SARA TITLE III

**Section 311/312:** Chronic Health

**Section 313 Toxic Chemicals:** This product contains no chemicals subject to SARA Title III Section 313 Reporting requirements.

**Section 302 Extremely Hazardous Substances (TPQ):** None

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of this product are listed on TSCA.

### STATE REGULATIONS:

**California Proposition 65:** This product does not contain substances known to the State of California to cause cancer and/or reproductive harm.

## 16. Other Information

**Training Advice:** All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

**Recommended Uses and Restrictions:** This product is intended for industrial/professional use only.

**SDS Revision Notes:** GHS format and classification changes. Change in product grouping.

**Disclaimer:** The information contained herein is considered accurate; however, Polytek® Development Corp. makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.



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Toll Free: (800)-4-midsun (U.S.A. only)  
(860) 378-0100 • (860) 378-0103 (Fax)  
www.midsungroup.com

## Acetone Material Safety Data Sheet (MSDS)

### MANUFACTURER'S CONTACT INFORMATION:

Sunoco, Inc. (R&M)	EMERGENCY
1735 Market Street LL	Sunoco: (800) 964-8861
Philadelphia, Pennsylvania 19103-7583	Chemtrec: (800) 424-9300
	Product Safety: (610) 859-1120

### I. Product Identification

Trade Name	Acetone
Product Use	Chemical Intermediate

### II. Hazardous Ingredients of Material

Components	Amount (Vol. %)	CAS No.	ACGIH TLV
Acetone	100	67-64-1	—

#### Exposure Limits (See Section VI for additional Exposure Limits)

Governing Body	CAS No.	Exposure Limits
ACGIH	67-64-1	STEL 750 ppm
ACGIH	67-64-1	TWA 500 ppm
OSHA	67-64-1	TWA 1,000 ppm

#### Emergency Overview:

Danger! Extremely flammable liquid and vapor. Vapors may cause flash fire or explosion. Harmful if inhaled. Vapor concentrations may cause drowsiness. Causes skin and eye irritation. Harmful if swallowed. May cause target organ or system damage to the following: Eye, skin, respiratory system, central nervous system.

### HAZARD RATINGS

Key: 0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme

	Health	Fire	Reactivity	PPI
NFPA	1	3	0	
HMIS	1	3	0	X

### III. Physical/Chemical Data

Appearance & Odor	Colorless liquid
Boiling Point	133° F
Melting Point	-137.2° F
Specific Gravity	0.79
Molecular Weight g/mole	58.08
pH	7
Odor	Sweet, pungent
Odor Threshold	62 ppm
Vapor Pressure (mm Hg @20° C)	181
Solubility in Water	Complete
Volatile (wt %)	100%



## Acetone Material Safety Data Sheet (MSDS)

IV. Fire and Explosion Data	
Flash Point	1.4
<b>Flammable Limits in Air (% By Volume)</b>	
Lower	2.5%
Upper	12.8%
Auto Ignition Temperature	869° F
Unusual Fire & Explosion Hazards	Use water spray. Use water spray to cool fire exposed tanks and containers. Acetone/water solutions that contain more than 2.5% acetone have flash points. When the acetone concentration is greater than 8% (by weight) in a closed container, it would be within flammable range and cause fire or explosion if a source of ignition were introduced.
Fire Extinguishing Media	Water spray, alcohol resistant foam, dry chemical or carbon dioxide.

V. Reactivity Data	
Stability	Stable
Conditions to Avoid	Avoid heat, sparks and open flame.
Incompatibility	Acetone may form explosive mixtures with chromic anhydride, chromyl alcohol, hexachloromelamine, hydrogen peroxide, permonosulfuric acid, potassium tertbutoxide and thioglycol. Strong oxidizers.
Hazardous Decomposition	May produce carbon dioxide, carbon monoxide and other asphyxiants.
Hazardous Polymerization	Will not occur.

VI. Health Hazard and Toxicological Data	
<b>Pre-existing Medical Conditions:</b> The following diseases or disorders may be aggravated by exposure to this product. Skin, eye, lung (asthma-like conditions).	
Chronic Exposure	Effects of Exposure
Eyes	Contact with the eye may cause moderate to severe irritation.
Skin	Moderately irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash). LD50 mg/kg Rabbit, 20,000    Draize Skin Score: no data    Out of 8.0
Inhalation	High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headache, paralysis and loss of consciousness and even death). High vapor concentrations are irritating to the eyes, nose, throat and lungs. LC50 (mg/l) no data LC50 (mg/m <sup>3</sup> ) Rat 8 hrs. 50,000 LC50 (ppm) no data
Ingestion	Product may be harmful or fatal if swallowed. Pulmonary aspiration hazard. After ingestion, may enter lungs and produce damage. May produce central nervous system effects, which may include dizziness, loss of balance and coordination, unconsciousness, coma and even death. LD50 (g/kg) Rat 5.8

## Acetone Material Safety Data Sheet (MSDS)

### VII. First Aid Procedures

Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.
Eye Contact	Flush eye(s) with water for 15 minutes. Get medical attention.
Skin Contact	Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothes separately before reuse.
Ingestion	If swallowed, DO NOT INDUCE VOMITING. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Get medical attention immediately. See Section X for additional first aid information.

### VIII. Preventive Measures

**Consult with a Health and Safety Professional for Specific Selections**

#### A. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	Concentrations in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Half-mask air purifying respirator with organic vapor cartridges is acceptable for exposure to ten (10) times the exposure limit. Full-face air purifying respirator with organic vapor cartridges is acceptable for exposures to fifty (50) times the exposure limit. Exposure should not exceed the cartridge limit of 1000 ppm. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures greater than fifty (50) times the exposure limit. If exposure is above the IDLH (Immediately Dangerous to Life and Health) or there is a possibility of an uncontrolled release, or exposure levels are unknown, then use a positive pressure-demand full-face air respirator with escape bottle or SCBA. Wear a NIOSH-approved (or equivalent) full-face piece airline respirator in the positive pressure mode with emergency escape provisions.
Eye/Face Protection	Splash proof chemical goggles or full-face shield recommended to protect against splash of product.
Clothing/Gloves	The glove(s) list below may provide protection against permeation. Gloves or other chemically resistant materials may not provide adequate protection. Protective gloves are recommended to protect against contact with product. Neoprene, Natural rubber.
Engineering Controls	Use with adequate ventilation. Ventilation is normally required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Use explosion-proof ventilation equipment.
Other	The following materials are acceptable for use as protective clothing; Neoprene, Natural rubber. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Remove contaminated clothing and wash before reuse.

#### B. STORAGE AND HANDLING

Storage Conditions	Keep away from heat, sparks and flame. Store in a cool, dry place. Keep container closed when not in use.
Handling Procedure	Use only in a well-ventilated area. Ground and bond containers when transferring material. Avoid breathing (dust, vapor, mist, gas). Avoid contact with this material. Wash thoroughly after handling. Do not use air pressure to unload containers.

**Continued on Next Page**

## Acetone Material Safety Data Sheet (MSDS)

### VIII. Preventive Measures (Continued)

<b>C. ENVIRONMENTAL PROTECTION</b>	
Spill and Leak Procedure	Prevent ignition, stop leak and ventilate the area. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Use appropriate personal protective equipment as stated in Section VIII of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required. U.S. regulations require reporting spills of this material could that reach any surface waters. The toll-free number for the U.S. Coast Guard National Response Center is (800) 424-8802. After removal, flush contaminated area thoroughly with water.
Waste Disposal	Follow federal, state and local regulations. In Canada, follow federal, provincial and local regulations. This material is a RCRA hazardous waste. DO NOT flush material to drain or storm sewer. Contract to authorized disposal service.
Ecological Information	This product is not expected to persist in the environment.
<b>D. TRANSPORTATION INFORMATION</b>	
Governing Body	U.S. DOT
Proper Shipping Name	Acetone
Mode	Ground
Hazard Class	3 (Flammable Liquid)
UN/NA Number	UN1090

### IX. Regulatory Information/Classifications

Regulatory List	Component	CAS Number
ACGIH – Occupational Exposure Limits – Carcinogens	Acetone	67-64-1
ACGIH – Occupational Exposure Limits – TWAs	Acetone	67-64-1
ACGIH – Short Term Exposure Limits	Acetone	67-64-1
CAA (Clean Air Act) – HON Rule – SOCM Chemicals	Acetone	67-64-1
Canada – WHMIS – Ingredient Disclosure	Acetone	67-64-1
CERCLA/SARA – Hazardous Substances and their RQs	Acetone	67-64-1
CERCLA/SARA – Hazardous Substances and their RQs	Acetone	67-64-1
CERCLA/SARA – Hazardous Substances and their RQs	Acetone	67-64-1
Inventory – Australia – (AICS)	Acetone	67-64-1
Inventory – Canada – Domestic Substances List	Acetone	67-64-1
Inventory – China	Acetone	67-64-1
Inventory – European – EINECS Inventory	Acetone	67-64-1
Inventory – Japan – (ENCS)	Acetone	67-64-1
Inventory – Korea – Existing and Evaluated	Acetone	67-64-1
Inventory – Philippines – (PICCS)	Acetone	67-64-1
Inventory – TSCA – Section 8(b) Inventory	Acetone	67-64-1
Massachusetts – Right to Know List	Acetone	67-64-1
New Jersey – Department of Health RTK List	Acetone	67-64-1
New Jersey – Special Hazardous Substances	Acetone	67-64-1
OSHA – Final PELs – Time Weighted Averages	Acetone	67-64-1
Pennsylvania – Right to Know List	Acetone	67-64-1
TSCA – Section 12(b) – Export Notification	Acetone	67-64-1
TSCA – Section 4 – Chemical Test Rules	Acetone	67-64-1

Continued on Next Page

## Acetone Material Safety Data Sheet (MSDS)

### IX. Regulatory Information/Classifications - Continued

Regulatory Information/Classifications Title III, Sections 311, 312				
Acute	Chronic	Fire	Reactivity	Sudden Release of Pressure
YES	NO	YES	NO	NO

### X. Other Information

If swallowed, acetone should be removed by emesis and/or gastric lavage. Mechanical assisted ventilation may be necessary. In severe cases, an initial period of hypoglycemia may require correction by intravenous solutions of dextrose. In some cases, an initial period of hyperglycemia has occurred during the recovery phase and has lasted for a few days. Treatment with insulin may be beneficial but should be used cautiously. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity or other sources of ignition. They may explode and cause injury or death. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner or properly disposed of. This product is subject to the Chemical Division and Trafficking Act of 1988 and subject to specific record keeping requirements. WHMIS Classification: Class B, Division 2 – Flammable Liquids.

*The information contained in this Material Safety Data Sheet is furnished without warranty of any kind, express or implied, and relates only to the specific material designated herein. User assumes responsibility for use or reliance on this data and assumes liability for damages related to the use or misuse of this product. The user is responsible for determining the conditions of safe use of this product and for complying with all Federal, State and Local governmental laws and regulations.*

# MATERIAL SAFETY DATA SHEET

12293  
05 00

DATE OF PREPARATION  
Apr 5, 2012

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

12293

### PRODUCT NAME

ACE® Pure Silicone Lubricant

### MANUFACTURER'S NAME

Mfd. for:  
ACE HARDWARE CORPORATION  
Oak Brook, IL 60521

### Telephone Numbers and Websites

Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300

\*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure	
15	74-98-6	Propane	ACGIH TLV OSHA PEL	2500 PPM 1000 PPM	760 mm
24	110-54-3	Hexane	ACGIH TLV OSHA PEL	50 PPM 50 PPM	127 mm
11	107-83-5	2-Methylpentane	ACGIH TLV OSHA PEL	Not Available Not Available	211 mm
4	96-14-0	3-Methylpentane	ACGIH TLV OSHA PEL	500 PPM Not Available	211 mm
3	79-29-8	2,3-Dimethylbutane	ACGIH TLV OSHA PEL	Not Available Not Available	230 mm
1	75-83-2	2,2-Dimethylbutane	ACGIH TLV OSHA PEL	Not Available Not Available	317 mm
1	110-82-7	Cyclohexane	ACGIH TLV OSHA PEL	100 PPM 300 PPM	100 mm
35	67-64-1	Acetone	ACGIH TLV ACGIH TLV OSHA PEL	500 PPM 750 PPM STEL 1000 PPM	180 mm

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.  
EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

### HMIS Codes

Health	2*
Flammability	4
Reactivity	0

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

None generally recognized.

**CANCER INFORMATION**

For complete discussion of toxicology data refer to Section 11.

**SECTION 4 — FIRST AID MEASURES**

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

**SECTION 5 — FIRE FIGHTING MEASURES****FLASH POINT**

Propellant < 0 °F

**LEL**

1.0

**UEL**

12.8

**EXTINGUISHING MEDIA**

Carbon Dioxide, Dry Chemical, Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**SPECIAL FIRE FIGHTING PROCEDURES**

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

**SECTION 6 — ACCIDENTAL RELEASE MEASURES****STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

**SECTION 7 — HANDLING AND STORAGE****STORAGE CATEGORY**

Not Available

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

**SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION****PRECAUTIONS TO BE TAKEN IN USE**

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

**VENTILATION**

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits.

Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

**RESPIRATORY PROTECTION**

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

**PROTECTIVE GLOVES**

None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

**EYE PROTECTION**

Wear safety spectacles with unperforated sideshields.

**OTHER PRECAUTIONS**

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	5.71 lb/gal	684 g/l
SPECIFIC GRAVITY	0.69	
BOILING POINT	<0 - 179 °F	<-18 - 81 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	96%	
EVAPORATION RATE	Faster than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
pH	7.0	

### VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

Volatile Weight 60.00%

Less Water and Federally Exempt Solvents

## SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable

### CONDITIONS TO AVOID

None known.

### INCOMPATIBILITY

None known.

### HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

### HAZARDOUS POLYMERIZATION

Will not occur

## SECTION 11 — TOXICOLOGICAL INFORMATION

### CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged and repeated exposure to Hexane may cause damage to nerve tissue of the arms and legs (peripheral neuropathy), resulting in muscular weakness and loss of sensation. This effect may be increased by the presence of Methyl Ethyl Ketone.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

### TOXICOLOGY DATA

CAS No.	Ingredient Name			
74-98-6	Propane	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
110-54-3	Hexane	LC50 RAT	4HR	Not Available
		LD50 RAT		28700 mg/kg
107-83-5	2-Methylpentane	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
96-14-0	3-Methylpentane	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
79-29-8	2,3-Dimethylbutane	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
75-83-2	2,2-Dimethylbutane	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
110-82-7	Cyclohexane	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
67-64-1	Acetone	LC50 RAT	4HR	Not Available
		LD50 RAT		5800 mg/kg

## SECTION 12 — ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

No data available.

**SECTION 13 — DISPOSAL CONSIDERATIONS****WASTE DISPOSAL METHOD**

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

**SECTION 14 — TRANSPORT INFORMATION**

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 (ocean, 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.

**US Ground (DOT)**

May be classed as LTD. QTY. OR ORM-D

UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

**Canada (TDG)**

May be classed as LTD. QTY. OR ORM-D

UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, (ERG#126)

**IMO**

May be shipped as Limited Quantity

UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, EmS F-D, S-U, ADR (D)

**IATA/ICAO**

UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

**SECTION 15 — REGULATORY INFORMATION****SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
110-54-3	Hexane	24	
110-82-7	Cyclohexane	1	

**CALIFORNIA PROPOSITION 65**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**TSCA CERTIFICATION**

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

**SECTION 16 — OTHER INFORMATION**

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.





**Chemical Name:** Rust Stop

**Manufacturer:** Ace

**Container size:** 15oz.

**Location:** VLA

**Disposal:** Place empty container in the trash.

# MATERIAL SAFETY DATA SHEET

1010016  
02 00

## Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER	DATE OF PREPARATION	HMIS CODES	
1010016	01-SEP-07	Health	2*
		Flammability	3
		Reactivity	0

PRODUCT NAME  
ACE® RUST STOP Indoor/Outdoor Enamel, Flat Black

MANUFACTURER'S NAME  
Mfd. for:  
ACE HARDWARE CORPORATION  
Oak Brook, IL 60521

TELEPHONE NUMBERS and WEBSITES  
Regulatory Information  
(216) 566-2902                      [www.paintdocs.com](http://www.paintdocs.com)  
Medical Emergency  
(216) 566-2917  
Transportation Emergency                      for Chemical Emergency ONLY (spill, leak,  
(800) 424-9300                      fire, exposure, or accident)

## Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSURE
14	74-98-6	Propane		
		ACGIH TLV	2500 ppm	760 mm
		OSHA PEL	1000 ppm	
13	106-97-8	Butane		
		ACGIH TLV	800 ppm	760 mm
		OSHA PEL	800 ppm	
19	64742-89-8	V. M. & P. Naphtha		
		ACGIH TLV	300 ppm	12 mm
		OSHA PEL	300 ppm	
		OSHA PEL	400 ppm STEL	
1	100-41-4	Ethylbenzene		
		ACGIH TLV	100 ppm	7.1 mm
		ACGIH TLV	125 ppm STEL	
		OSHA PEL	100 ppm	
		OSHA PEL	125 ppm STEL	
6	1330-20-7	Xylene		
		ACGIH TLV	100 ppm	5.9 mm
		ACGIH TLV	150 ppm STEL	
		OSHA PEL	100 ppm	
		OSHA PEL	150 ppm STEL	
23	67-64-1	Acetone		
		ACGIH TLV	500 ppm	180 mm
		ACGIH TLV	750 ppm STEL	
		OSHA PEL	1000 ppm	
4	14807-96-6	Talc		
		ACGIH TLV	2 mg/m3 as Resp. Dust	
		OSHA PEL	2 mg/m3 as Resp. Dust	

Continued on page 2

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7	471-34-1	Calcium Carbonate			
		ACGIH TLV	10	mg/m3	as Dust
		OSHA PEL	15	mg/m3	Total Dust
		OSHA PEL	5	mg/m3	Respirable Fraction
0.6	1333-86-4	Carbon Black			
		ACGIH TLV	3.5	mg/m3	
		OSHA PEL	3.5	mg/m3	

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### Section 3 -- HAZARDS IDENTIFICATION

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#### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

#### EFFECTS OF OVEREXPOSURE

EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

#### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

#### CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

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### Section 4 -- FIRST AID MEASURES

---

EYES: Flush eyes with large amounts of water for 15 minutes.  
Get medical attention.

SKIN: Wash affected area thoroughly with soap and water.  
Remove contaminated clothing and launder before re-use.

INHALATION: If affected, remove from exposure. Restore breathing.  
Keep warm and quiet.

INGESTION: Do not induce vomiting.  
Get medical attention immediately.

---

### Section 5 -- FIRE FIGHTING MEASURES

---

FLASH POINT	LEL	UEL
Propellant < 0 F	0.9	12.8

#### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

#### UNUSUAL FIRE AND EXPLOSION HAZARDS

Containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

Continued on page 3

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## SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

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## Section 6 -- ACCIDENTAL RELEASE MEASURES

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### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

---

## Section 7 -- HANDLING AND STORAGE

---

### STORAGE CATEGORY

Not Available

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

---

## Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

---

### PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

### VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

---

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

## PROTECTIVE GLOVES

None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

## EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

## OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

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Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

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PRODUCT WEIGHT	6.46 lb/gal	774 g/l
SPECIFIC GRAVITY	0.78	
BOILING POINT	<0 - 325 F	<-18 - 162 C
MELTING POINT	Not Available	
VOLATILE VOLUME	89 %	
EVAPORATION RATE	Faster than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
pH	7.0	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)		
Volatile Weight	54.40%	Less Water and Federally Exempt Solvents

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Section 10 -- STABILITY AND REACTIVITY

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STABILITY -- Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

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Section 11 -- TOXICOLOGICAL INFORMATION

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## CHRONIC HEALTH HAZARDS

Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary and reproductive systems.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

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## TOXICOLOGY DATA

CAS No.	Ingredient Name				
74-98-6	Propane	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
106-97-8	Butane	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
64742-89-8	V. M. & P. Naphtha	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
100-41-4	Ethylbenzene	LC50	RAT	4HR	Not Available
		LD50	RAT		3500 mg/kg
1330-20-7	Xylene	LC50	RAT	4HR	5000 ppm
		LD50	RAT		4300 mg/kg
67-64-1	Acetone	LC50	RAT	4HR	Not Available
		LD50	RAT		5800 mg/kg
14807-96-6	Talc	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
471-34-1	Calcium Carbonate	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
1333-86-4	Carbon Black	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available

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## Section 12 -- ECOLOGICAL INFORMATION

## ECOTOXICOLOGICAL INFORMATION

No data available.

Continued on page 6

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Section 13 -- DISPOSAL CONSIDERATIONS

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## WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

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Section 14 -- TRANSPORT INFORMATION

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## US Ground (DOT)

May be classed as Consumer Commodity, ORM-D  
UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

## Canada (TDG)

May be classed as Consumer Commodity, ORM-D  
UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, (ERG#126)

## IMO

May be shipped as Limited Quantity  
UN1950, AEROSOLS, CLASS 2, LIMITED QUANTITY, EmS F-D, S-U

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Section 15 -- REGULATORY INFORMATION

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SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

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CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
100-41-4	Ethylbenzene	1	
1330-20-7	Xylene	6	

## CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

## TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

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Section 16 -- OTHER INFORMATION

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This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

## Safety Data Sheet

Material Name Acetylene Gas

SDS ID: 00244563

### \*\*\*Section 1 - IDENTIFICATION\*\*\*

**Product Identifier:** Acetylene Gas

**Trade Names/Synonyms**

Ethyne, Ethine; Welding gas; Narcylen; Acetylen; Vinylene

**Chemical Family**

hydrocarbons, aliphatic

**Recommended Use**

Industrial and Specialty Gas Applications

**Restrictions on Use**

None known.

**Manufacturer Information**

WESTERN INTERNATIONAL GAS & CYL. INC.  
7173 Hwy 159E  
P.O. Box 668  
Bellville, TX 77418

General Information: 1-979-413-2100  
Emergency #: 1-800-424-9300 (CHEMTREC)

Outside the US: 703-527-3887 (Call collect)

### \*\*\*Section 2 - HAZARDS IDENTIFICATION\*\*\*

**Classification in accordance with 29 CFR 1910.1200**

Flammable gas, Category 1

Gas under pressure, Dissolved gas

Specific Target Organ Toxicity - Single Exposure, Category 3 (central nervous system)

**GHS LABEL ELEMENTS**

**Symbol(s)**



**Signal Word**

DANGER

**Hazard Statement(s)**

Extremely flammable gas

Contains gas under pressure; may explode if heated

May cause drowsiness and dizziness

May displace oxygen and cause rapid suffocation.



# Safety Data Sheet

Material Name Acetylene Gas

SDS ID: 00244563

## Precautionary Statement(s)

### Prevention

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Avoid breathing gas. Use only outdoors or in a well-ventilated area.

### Response

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

### Storage

Store in a well-ventilated place. Protect from sunlight. Keep container tightly closed. Store locked up.

### Disposal

Dispose of in accordance with applications with applicable regulations.

## Hazard(s) Not Otherwise Classified

May cause frostbite upon sudden release of compressed gas.

## \*\*\*Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS\*\*\*

CAS	Component	Percent
74-86-2	Acetylene	100

## \*\*\*Section 4 - FIRST AID MEASURES\*\*\*

### Description of Necessary Measures

#### Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

#### Skin

If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

#### Eyes

Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Then get immediate medical attention.

#### Ingestion

If swallowed, get medical attention.

### Most Important Symptoms/Effects

#### Acute

frostbite, suffocation, central nervous system depression

#### Delayed

No information on significant adverse effects.

### Indication of Immediate Medical Attention and Special Treatment

For inhalation, consider oxygen.

# Safety Data Sheet

Material Name Acetylene Gas

SDS ID: 00244563

## \* \* \*Section 5 - FIRE FIGHTING MEASURES\* \* \*

### Suitable Extinguishing Media

carbon dioxide, regular dry chemical

Large fires: water spray or fog

### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Chemical

Severe explosion hazard. Vapor/air mixtures are explosive. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

### Hazardous Combustion Products

**Combustion:** oxides of carbon

### Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Stop leak if possible without personal risk. Let burn unless leak can be stopped immediately. Evacuation radius: 1600 meters (1 mile). For smaller tanks or cylinders, extinguish and isolate from other flammables. Do not attempt to extinguish fire unless flow of material can be stopped first. Flood with fine water spray. Apply water from a protected location or from a safe distance. Consider downwind evacuation if material is leaking. Stay upwind and keep out of low areas. Avoid inhalation of material or combustion by-products.

### Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

## \* \* \*Section 6 - ACCIDENTAL RELEASE MEASURES\* \* \*

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

### Methods and Materials for Containment and Cleaning Up

Keep unnecessary people away, isolate hazard area and deny entry. Remove sources of ignition. Stop leak if possible without personal risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Use water spray to reduce vapors or divert vapor cloud drift. Do not direct water at spill or source of leak. Ventilate closed spaces before entering.

## \* \* \*Section 7 - HANDLING AND STORAGE\* \* \*

### Precautions for Safe Handling

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Avoid breathing gas. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Dissipate static electricity during transfer by earthing (grounding and bonding) containers and equipment.

# Safety Data Sheet

Material Name Acetylene Gas

SDS ID: 00244563

## Conditions for Safe Storage, including any Incompatibilities

Store and handle in accordance with all current regulations and standards. Protect from physical damage. Store outside or in a detached building. Store in a cool, dry place. Keep container tightly closed. Store in a well-ventilated area. Avoid heat, flames, sparks and other sources of ignition. Grounding and bonding required. Secure to prevent tipping. Store in a tightly closed container. Protect from sunlight. Store locked up. Keep separated from incompatible substances.

**Incompatibilities** metals, halogens, oxidizing materials, metal carbide, reducing agents, halo carbons

## **\*\*\*Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\*\*\***

### Component Exposure Limits

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

**ACGIH:** Simple asphyxiant

**NIOSH:** 2500 ppm Ceiling; 2662 mg/m3 Ceiling

### Component Biological Limit Values

There are no biological limit values for any of this product's components.

### Appropriate Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eyes/Face Protection

For the gas: Eye protection not required, but recommended. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

#### Skin Protection

For the gas: Protective clothing is not required.

#### Glove Recommendations

For the gas: Protective gloves are not required, but recommended.

#### Respiratory Protection

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

Respiratory protection is ranked in order from minimum to maximum.

Consider warning properties before use.

#### **For Unknown Concentrations or Immediately Dangerous to Life or Health -**

Any supplied-air respirator with a full facepiece that 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.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

## **\*\*\*Section 9 - PHYSICAL AND CHEMICAL PROPERTIES\*\*\***

# Safety Data Sheet

Material Name Acetylene Gas

SDS ID: 00244563

<b>Physical State:</b>	Gas	<b>Appearance:</b>	Colorless gas
<b>Color:</b>	colorless	<b>Physical Form:</b>	gas
<b>Odor:</b>	sweet odor, garlic odor	<b>Odor Threshold:</b>	Not available
<b>pH:</b>	Not available	<b>Melting/Freezing Point:</b>	Not available
<b>Boiling Point:</b>	Not available	<b>Flash Point:</b>	flammable gas
<b>Decomposition:</b>	Not available	<b>Evaporation Rate:</b>	Not available
<b>LEL:</b>	2.5 %	<b>UEL:</b>	100 %
<b>Vapor Pressure:</b>	760 mmHg @ -84 °C	<b>Henry's Law Constant:</b>	2.17X10 <sup>-2</sup> atm-cu m/mol at 25°C
<b>Vapor Density (air = 1):</b>	0.90	<b>Density:</b>	1.1747 g/L @ 0 °C
<b>Water Solubility:</b>	0.94 % @ 25 °C	<b>Log KOW:</b>	0.37
<b>Auto Ignition:</b>	305 °C	<b>Viscosity:</b>	0.010 cP @20 °C
<b>Sublimation Point:</b>	-84 °C	<b>Molecular Weight:</b>	26.04
<b>Molecular Formula:</b>	H-C-C-H	<b>Critical Temperature:</b>	35.2 °C @ 6190 kPa
<b>Flammability (solid, gas):</b>	Flammable gas		

## Other Property Information

No additional information is available.

## Solvent Solubility

**Soluble:** acetone, benzene, chloroform, ether

## \* \* \*Section 10 - STABILITY AND REACTIVITY\* \* \*

### Reactivity

May decompose on contact with heat.

### Chemical Stability

May decompose violently on heating. May explode when heated. In its gaseous state, may decompose explosively at elevated pressure.

### Possibility of Hazardous Reactions

Polymerizes with evolution of heat. Avoid contact with curing agents, accelerators, and/or initiators.

### Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

### Incompatible Materials

metals, halogens, oxidizing materials, metal carbide, reducing agents, halo carbons

### Hazardous Decomposition

**Combustion:** oxides of carbon

## \* \* \*Section 11 - TOXICOLOGICAL INFORMATION\* \* \*

### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

#### RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

# Safety Data Sheet

Material Name Acetylene Gas

SDS ID: 00244563

## Information on Likely Routes of Exposure

### Inhalation

nausea, vomiting, chest pain, wheezing, headache, drowsiness, dizziness, loss of coordination, bluish skin color, suffocation, lung congestion, coma

### Ingestion

no information on significant adverse effects

### Skin Contact

rash

### Eye Contact

irritation

### Immediate Effects

frostbite, suffocation, central nervous system depression

### Delayed Effects

No information on significant adverse effects.

### Medical Conditions Aggravated by Exposure

None known.

### Irritation/Corrosivity Data

No animal testing data available for skin or eyes.

### RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

### Target Organs

Acetylene (74-86-2)

central nervous system

### Respiratory Sensitization

No data available.

### Dermal Sensitization

No data available.

### Carcinogenicity

#### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

### RTECS Mutagenic

The components of this material have been reviewed, and RTECS publishes data for one or more components.

### Reproductive Effects Data

No data available.

### RTECS Tumorigenic

The components of this material have been reviewed, and RTECS publishes data for one or more components.

### Additional Data

Stimulants such as epinephrine may induce ventricular fibrillation.

### Specific Target Organ Toxicity - Single Exposure

central nervous system

### Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

# Safety Data Sheet

Material Name Acetylene Gas

SDS ID: 00244563

## Aspiration Hazard

Not applicable.

## \*\*\*Section 12 - ECOLOGICAL INFORMATION\*\*\*

### Component Analysis - Aquatic Toxicity

No LOEL ecotoxicity data are available for this product's components.

### Persistence and Degradability

No data available.

### Bioaccumulative Potential

No data available.

### Mobility

No data available.

## \*\*\*Section 13 - DISPOSAL CONSIDERATIONS\*\*\*

### Disposal Methods

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262.

Hazardous Waste Number(s): D001. D003.

### Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

## \*\*\*Section 14 - TRANSPORT INFORMATION\*\*\*

### US DOT Information

**Shipping Name:** Acetylene, dissolved

**UN/NA #:** UN1001 **Hazard Class:** 2.1

**Required Label(s):** 2.1

### IMDG Information

**Shipping Name:** Acetylene, dissolved

**UN #:** UN1001 **Hazard Class:** 2.1

**Required Label(s):** 2.1

## \*\*\*Section 15 - REGULATORY INFORMATION\*\*\*

### Component Analysis

#### U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

#### SARA 311/312 Hazardous Categories

**Acute Health:** Yes **Chronic Health:** No **Fire:** Yes **Pressure:** Yes **Reactive:** Yes

#### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Acetylene	74-86-2	Yes	Yes	Yes	Yes	Yes

Not regulated under California Proposition 65

# Safety Data Sheet

Material Name Acetylene Gas

SDS ID: 00244563

## Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Acetylene	74-86-2	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

## \* \* \*Section 16 - OTHER INFORMATION\* \* \*

**NFPA Ratings: Health: 3 Fire: 4 Reactivity: 3**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

### Other Information

Western International Gas & Cylinders, Inc. makes no express or implied warranties, guarantees or representations regarding the product or the information herein, including but not limited to any implied warranty or merchantability or fitness for use. Western International Gas & Cylinders, Inc. shall not be liable for any personal injury, property or other damages of any nature, whether compensatory, consequential, exemplary, or otherwise, resulting from any publication, use or reliance upon the information herein.

End of Sheet 00244563

## DISTRIBUTOR: AEROMARINE PRODUCTS

8659 Production Avenue, San Diego, CA 92121  
1.877.342.8860



### Material Safety Data Sheet

#### Tempo Series

Date Of Preparation: March 28. 2011

MSDS No. 849

Revision: 0002

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Tempo 30, Tempo Fast and Tempo Very Fast Part A

**General Use:** Silicone Elastomer

**Manufacturer:** Smooth-On Inc., 2000 St. John St., Easton PA 18042

Phone (610) 252-5800, FAX (610) 252-6200

**Emergency Contact:** Chem-Tel

Domestic 800-255-3924

International 813-248-0585

## Section 2- Hazards Identification

Not hazardous according to United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) and Council directive 1999/45/EC and its subsequent amendments.

HMIS	
H	1
F	1
R	0

## Section 3 - Composition / Information on Ingredients

No hazardous ingredients

## Section 4 - First Aid Measures

**Inhalation:** Remove source(s) of contamination and move victim to fresh air.

**Eye Contact:** Flush eyes with plenty of water. If irritation persists, seek medical attention.

**Skin Contact:** In case of skin contact, wash thoroughly with soap and water; remove contaminated clothing and launder before reuse.

**Ingestion:** Do not induce vomiting unless instructed by a physician. Contact physician immediately

***After first aid, get appropriate in-plant, paramedic, or community medical support.***



## Section 5 - Fire-Fighting Measures

**Flash Point:** >300 °F

**Flash Point Method:** PMCC NFPA

**LEL:** Not Established

**UEL:** Not Established

**Flammability Classification:** Non-Flammable

**Extinguishing Media:** Dry Chemical, Carbon Dioxide, and Foam

**Unusual Fire or Explosion Hazards:** None

**Fire-Fighting Instructions:** Fire fighters should wear self-contained breathing apparatus. Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.



## Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Dike and contain spill; absorb or scrape up excess into suitable container for disposal. Stop or reduce discharge if it can be done safely.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

## Section 7 - Handling and Storage

**Handling Precautions:** Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. Use good general housekeeping procedures.

**Storage Requirements:** Store in cool dry, well-ventilated area.

## Section 8 - Exposure Controls / Personal Protection

**Respiratory Protection:** Follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**Protective Clothing/Equipment:** Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye-and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics

## Section 9 - Physical and Chemical Properties

**Physical State:** Viscous Liquid

**Appearance :** off-white viscous liquid

**Odor :** Mild odor

**Vapor Pressure:** None (Polymeric Resin)

**Vapor Density (Air=1):** >1

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 1.2

**Water Solubility:** Insoluble

**Boiling Point:** None (Polymeric Resin)

**% Volatile:** Nil

**Freezing/Melting Point:** None (Polymeric Resin)

**Viscosity:** 600 poise

**Evaporation Rate:** Not Applicable

## Section 10 - Stability and Reactivity

**Stability:** These products are stable at room temperature in closed containers under normal storage and handling conditions.

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

**Chemical Incompatibilities:** Strong bases, and acids.

**Hazardous Decomposition Products:** Silica, carbon monoxide and carbon dioxide

## Section 11- Toxicological Information

**Eye Effects:** Irritation

**Skin Effects:** Irritation

**Carcinogenicity:** None Determined

**Mutagenicity:** None Determined

**Teratogenicity:** None Determined

## Section 12 - Ecological Information

None Established

## Section 13 - Disposal Considerations

**Disposal:** Must be disposed of in accordance with applicable Federal, state and local regulations.

## Section 14 - Transport Information

DOT

IATA

IMDG

Not Regulated

Not Regulated

Not Regulated

## Section 15 - Regulatory Information

**United States Regulations**

**EPA Regulations:**

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33) SARA Toxic

Chemical (40 CFR 372.65): None

These products do not contain chemicals that are subject to release reporting requirements under **section 313 of SARA Title III**.

**TSCA Inventory Status (40 CFR710):** All components of this formulation are listed in the TSCA Inventory.

California Proposition 65: These products do not intentionally contain any chemicals which have been identified by the state of California to cause cancer, birth defects or other reproductive harm

## **CANADA Regulations**

WHMIS Identification: **Not controlled**

CDSL/NDL (Canadian Domestic Substance List/Non Domestic Substance List): **All are Listed Labeling according to**

### **EEC Directive**

No special packaging or labeling requirements

## **Section 16 - Other Information**

**Disclaimer:** The information contained in this MSDS is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.

This Material 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 Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 1907/2006/EEC (REACH). Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European Union (EU/EEC) directive 1907/2006/EEC and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directives.

## **DISTRIBUTOR: AEROMARINE PRODUCTS**

8659 Production Avenue, San Diego, CA 92121

1.877.342.8860

Distributed by AeroMarine Products as: AeroMarine Epoxy Resin #300

### **Material Safety Data Sheet**

The Dow Chemical Company

**Product Name:** D.E.R.\* 324 EPOXY RESIN

**Issue Date:** 08/23/2007

**Print Date:** 06 Jan 2011

\*Indicates a Trademark

The Dow Chemical Company encourages and expects you to read and understand the entire (M)SDS, as there is important 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. Product and Company Identification**

### **Product Name**

D.E.R.\* 324 EPOXY RESIN

### **COMPANY IDENTIFICATION**

The Dow Chemical Company  
2030 Willard H. Dow Center  
Midland, MI 48674  
USA

Customer Information Number:

800-258-2436

[SDSQuestion@dow.com](mailto:SDSQuestion@dow.com)

### **EMERGENCY TELEPHONE NUMBER**

24-Hour Emergency Contact:

989-636-4400

Local Emergency Contact:

989-636-4400

## **2. Hazards Identification**

### **Emergency Overview**

**Color:** Yellow

**Physical State:** Liquid

**Odor:** Mild

### **Hazards of product:**

**WARNING!** May cause allergic skin reaction. May cause eye irritation.  
May cause skin irritation. Isolate area.

## OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Potential Health Effects

**Eye Contact:** May cause eye irritation. Corneal injury is likely.

**Skin Contact:** Prolonged or repeated contact may cause skin irritation.

**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

**Skin Sensitization:** Has caused allergic skin reactions in humans.

**Inhalation:** Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

**Ingestion:** Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

**Cancer Information:** For the major component(s): Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of the bisphenol A (DGEBA). Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBA is not classified as a carcinogen. Although some weak evidence does not show that DGEBA is carcinogenic.

## 3. Composition Information

Component	CAS #	Amount
Propane, 2, 2-bis[2,3-epoxypropoxy)phenyl]-, polymers	25085-99-8	83.0 %
Alkyl(C12-14) glycidyl ether	68609-97-2	17.0%

## 4. First-aid measures

**Eye contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

**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 use. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

**Inhalation:** Move person to fresh air; if effects occur, consult a physician.

**Ingestion:** No emergency medical treatment necessary.

**Notes to Physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## 5. Fire Fighting Measures

**Extinguishing Media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant

foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**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.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water steam to hot liquids. Dense smoke is emitted when burned without sufficient oxygen.

**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: Phenolics. Carbon monoxide. Carbon dioxide.

## **6. Accidental Release Measures**

**Steps to be Taken if Material or Spilled:** Contain spilled material if possible. Absorb with materials such as: Sand. Polypropylene fiber products. Polyethylene fiber products. Remove residual with soap and hot water. Collect in suitable and properly labeled containers. Residual can be removed with solvent. Solvents are not recommended for clean-up unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed. Consult appropriate solvent Safety Data Sheet for handling information and exposure guidelines. See Section 13, Disposal Considerations, for additional information.

**Personal Precautions:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section, Exposure Controls and Personal Protection. 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.

## 7. Handling and Storage

### Handling

**General Handling:** Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Avoid contact with skin and clothing. Wash thoroughly after handling. See Section 8, EXPOSURE CONTROLS AND PROTECTION.

### Storage

No specific requirements. Additional storage and handling information on this product may be obtained by calling your Dow sales or customer service contact. Ask for a product brochure.

**Shelf life: Use within**  
24 Months

**Storage temperature:**  
2 – 43°C

## 8. Exposure Controls / Personal Protection

### Exposure Limits

None established

### Personal Protection

**Eye/Face Protection:** use safety glasses.

**Skin 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. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts, and watchbands, should be removed and disposed of properly.

**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate (“EVAL”). Nitrile/butadiene rubber (“nitrile” or “NBR”). Neoprene. 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.

**Respiratory Protection:** For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

**Ingestion:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

## Engineering Controls

**Ventilation:** Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

## 9. Physical and Chemical Properties

Physical State	Liquid
Color	Yellow
Odor	Mild
Flash Point – Closed Cup	176.7 – 190.6 °C (350.1 – 375.1 °F) PMCC, ASTM D93
Flammable Limits In Air	<b>Lower:</b> Not applicable <b>Upper:</b> Not applicable
Autoignition Temperature	Not determined
Vapor Pressure	0.06 mmHg @ 70 °F Literature (alkyl glycidyl ether)
Boiling Point (760 mmHg)	>= 300°F (>= 300°F) Literature
Vapor Density (air = 1)	Literature Not applicable
Specific Gravity (H2O = 1)	1.11 – 1.14 Literature
Freezing Point	Not determined
Melting Point	Not applicable
Solubility in Water (by weight)	Insoluble
pH	Not applicable
Dynamic Viscosity	600 – 800 cPs @ 25 °C ASTM D445

## 10. Stability and Reactivity

### Stability/Instability

Stable under recommended storage conditions. See Storage, Section 7.

**Conditions to Avoid:** Avoid temperatures avoid 300°C (572°F) potentially violent decomposition can occur above 350°C (662°F) Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

**Incompatible Materials:** Avoid contact with oxidizing materials. Avoid contact with: Acids. Bases. Avoid unintended contact with amines.

**Hazardous Polymerization:** Will not occur by itself. Masses of more than one pound (0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up.

### Thermal Decomposition

Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water.



## 11. Toxicological Information

### Acute Toxicity

#### Ingestion

Based on information for component(s): LD50, Rat > 5,000 mg/kg

#### Skin Absorption

For the major component(s): LD50, Rabbit 20,000 mg/kg

#### Sensitization

##### Skin

Has caused allergic skin reactions in humans. For the major component(s): Did not cause allergic skin reactions when tested in mice.

#### Repeated Dose Toxicity

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

#### Chronic Toxicity and Carcinogenicity

For the major component(s): Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol A (DGEBA). Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBA is not classified as a carcinogen. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBA is carcinogenic.

#### Developmental Toxicity

For the major component(s): Resins based on the diglycidyl ether of bisphenol A (DGEBA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.

#### Reproductive Toxicity

For the major component(s): In animal studies, did not interfere with reproduction.

#### Genetic Toxicology

Based on information for component(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

## 12. Ecological Information

### CHEMICAL FATE

Data for Component: **Propane, 2,2-bis[p-2,3-epoxypropoxy]phenyl]-, polymers**

#### Movement & Partitioning

Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). Potential for mobility in soil is low (Koc between 500 and 2000).

**Henry's Law Constant (H):** <6.94E-09 atm\*m3/mole; 25°C Estimated

**Partition coefficient, soil organic carbon/water (Koc):** 1,800 – 4,400 Estimated

**Persistence and Degradability**

Biodegradation under aerobic laboratory conditions is below detectable limits (BOD20 or BOD28/ThOD < 2.5%).

**Indirect Photodegradation with OH Radicals**

Rate Constant	Atmospheric Half-life	Method
6.69E-11 cn3/s	1.92 h	Estimated

**OECD Biodegradation Tests:**

Biodegradation	Exposure Time	Method
12%	28 d	OECD 302B Test

**Biological oxygen demand (BOD):**

BOD 5	BOD 10	BOD 20	BOD 28
		<2.5 %	

**Theoretical Oxygen Demand:** 2.35 mg/mg

Data for Component: **Alkyl(C12-14) glycidyl ether**

**Partition coefficient, n-octanol/water (log Pow):** 3.77 Shake flask (OECD 107 Test)

**Persistence and Degradability**

Biodegradation under aerobic static laboratory conditions is moderate (BOD20 or BOD28/ThOD between 10 and 40%).

**OECD Biodegradation Tests:**

Biodegradation	Exposure Time	Method
34.7 %	28 d	OECD 301D Test

**Chemical Oxygen Demand:** 2.09 mg/mg

**EXOTOXICITY**

Data for Component: **Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers**

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in most sensitive species tested). Toxicity to aquatic species occurs at concentrations above material's water solubility.

**Fish Acute & Prolonged Toxicity**

LC50, fathead minnow (*Pimephales promelas*), 96 h: 3.1 mg/l

**Aquatic Invertebrate Acute Toxicity**

EC50, water flea *Daphnia magna*, 48 h, immobilization: 1.4 – 1.7 mg/l

**Toxicity to Micro-organisms**

IC50; bacteria, Growth inhibition, 18 h: > 42.6 mg/l

Data for Component: **Alkyl(C12-14) glycidyl ether**

EC50 is above the water solubility.

### 13. Disposal Considerations

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. DOW HAS 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. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details.

### 14. Transport Information

#### **DOT Non-Bulk**

NOT REGULATED

#### **DOT Bulk**

NOT REGULATED

#### **IMDG**

NOT REGULATED

#### **ICAO/IATA**

NOT REGULATED

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*

### 15. Regulatory Information

#### **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**

<b>Immediate (Acute) Health Hazard</b>	Yes
<b>Delayed (Chronic) Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Reactive Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**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.

**European Inventory of Existing Commercial Chemical Substances (EINECS)**

Components of this product are not listed on EINECS because they are polymers or “no-longer polymers” marketed before the enforcement of the 7<sup>th</sup> Amendment to Directive 67/548/EEC.

**US. Toxic Substances Control Act**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

**CEPA – Domestic Substances List (DSL)**

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

**Remarks:**

Liquid Epoxy resins (LERs) are made by reacting bisphenol A and epichlorohydrin. Dow uses both CAS No. 25085-99-8 and 25068-38-6 for its LERs. Other manufacturers use CAS No. 25068-38-6 for their LERs. Accordingly, LER manufacturers consider that derivatives of LERs may be described using either CAS number as a starting material.

## 16. Other Information

### Hazard Rating System

NFPA	Health	Fire	Reactivity
	1	1	1

### Recommended Uses and Restrictions

Used in applications such as: Adhesives. Casting. Tooling. Civil engineering. Composites. Marine and protective coatings. Potting and encapsulation.

### Revision

Identification Number: 50157 / 1001 / Issue Date 08/23/2007 / Version: 2.1

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

### Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

*The Dow Chemical Company urges each customer or recipient of this (M)SDS to study it carefully and 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 (MS)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.*





## MATERIAL SAFETY DATA SHEET

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### 1. Product and Company Identification

**Product Name:** Band-Ade®  
**CAS Number:** Mixture  
**Product Use:** Metalworking Fluid  
**Company Information:** Lenox Tools  
301 Chestnut Street  
East Longmeadow, MA 01028  
**Emergency Contact:** CHEMTREC (U.S. and Canada) 1800-424-9300  
CHEMTREC (Outside the U.S.) 1-703-527-0585  
**Technical Contact:** 1-800-642-0010  
**MSDS Revision Date:** March 20<sup>th</sup>, 2013  
**MSDS Supersedes Date:** July 19<sup>th</sup>, 2006  
**MSDS Creation Date:** July 15<sup>th</sup>, 2003

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### 2. Composition / Information on Ingredients (Typical Values)

HAZARDOUS INGREDIENTS	CAS NO.	WT %	ACGIH(TLV)	OSHA(PEL)†	Carcinogen
None	-	-	-	-	No

NE = Not Established

This product is not considered to be a carcinogen by the IARC, ACGIH, NTP, or OSHA

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### 3. Hazard Identification

**Emergency Overview:** Health injuries are not known or expected under normal use. Product may cause eye or skin irritation with predisposed personnel. Inhalation of vapor or mist may cause irritation. Prolonged or repeated exposure increases the risk.

**Potential short term health effects:**

**Routes of Exposure:** Skin, Inhalation, Ingestion  
**Eyes:** Contact with eyes may cause irritation.  
**Skin:** Prolonged and/or repeated skin contact may result in mild irritation or redness.

<b>Inhalation:</b>	Avoid breathing vapors or mists of this product. Product may cause irritation of the respiratory tract.
<b>Ingestion:</b>	No significant adverse effects are expected upon ingestion of the product. Small amounts (a tablespoonful) swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.
<b>Target organs:</b>	Not established.
<b>Chronic effects:</b>	Not established.
<b>Main symptoms:</b>	May cause eye/skin irritation. Inhalation of vapors may cause irritation of the respiratory system in very susceptible persons.
<b>Potential environmental effects:</b>	This material is not expected to be harmful to aquatic life. No special environmental safety measures are required.

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## 4. First Aid Measures

<b>General advice:</b>	No hazards which require special first aid measures. In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes. If you feel unwell, seek medical advice (show the label where possible).
<b>First Aid Procedures</b>	
<b>Eye contact:</b>	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
<b>Skin contact:</b>	Wash affected area with mild soap and water.
<b>Inhalation:</b>	Remove to fresh air. No specific treatment is necessary since this material is not likely to be hazardous by inhalation. Call a physician if symptoms develop or persist.
<b>Ingestion:</b>	Drink water as a precaution. No need for first aid is anticipated if material is swallowed. If ingestion of a large amount does occur, seek medical attention.
<b>Notes to physician:</b>	Treat symptomatically.

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## 5. Fire Fighting Measures

<b>Flash Point:</b>	Not Applicable
<b>Extinguishing Media:</b>	Small Fires: Dry chemical, CO <sub>2</sub> , water spray, regular foam. Large Fires: Water spray, fog, regular foam.
<b>Special Fire</b>	



**Fighting Procedures:** Fire-fighters should wear appropriate protective equipment and wear approved self-contained breathing apparatus if fumes are present.

**Unusual Fire & Explosion Hazards:** None known. Not to be used on Magnesium.

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## 6. Accidental Release Measures

**Evacuation procedures:** Isolate area. Keep unnecessary personnel away. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed.

**Containment procedures:** Stop leak if you can do so without risk. Dike the spilled material, where this is possible.

**Personal precautions:** Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Environmental precautions:** No special environmental precautions required.

**Methods for cleaning up:** Attempt to reclaim the free product, if this is possible. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

**Spill or leak procedure:** Not established.

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## 7. Handling and Storage

**Handling:** Keep this product from heat, sparks, or open flame. Do not mix this product with fluids which contain NITRITES/NITRATES. Avoid prolonged or repeated skin contact with this material. Avoid breathing vapors or mists of this product. Wash hands after handling and before eating. Flood lubricant for industrial use only. Store at temperatures between 50 °F and 100 °F. Protect from freezing. If frozen, thaw to room temperature and agitate.

**Storage:** No special storage conditions required. Use care in handling/storage. Keep container closed when not in use.

**Special packaging materials:** Not established.

**Further information:** Not established.

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## 8. Exposure Controls / Personal Protection

### Personal protective equipment

<b>Respiratory protection:</b>	No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment.
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Eye protection:</b>	Wear safety glasses with side shields. If splashes are likely to occur, wear: face-shield
<b>Skin and body protection:</b>	Normal work clothing (long sleeved shirts and long pants) is recommended. Wear safety shoes.
<b>General:</b>	Avoid contact with skin and eyes. Wear suitable protective equipment.

**Control parameters:** Not established.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls:** Ventilation in area, safety shower, eyewash area.

### Engineering measures

**To reduce exposure:** Provide adequate ventilation. Ventilation should effectively remove and prevent buildup of any vapor/mist/fume/dust generated from the handling of this product.

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## 9. Physical and Chemical Properties

<b>Form:</b>	Liquid
<b>Color:</b>	Amber
<b>Odor:</b>	Petroleum
<b>Appearance:</b>	Clear to slight haze
<b>Water Solubility:</b>	Forms Emulsion
<b>Boiling Point:</b>	> 200°F
<b>pH @ 5%:</b>	8.8 – 9.5
<b>Specific Gravity:</b>	0.90 – 1.00
<b>Vapor Pressure:</b>	Not Established
<b>VOC's:</b>	Not Established
<b>Vapor Density:</b>	Not Established
<b>Evaporation Rate:</b>	Not Established
<b>Viscosity:</b>	Not Established
<b>Melting Point:</b>	Non Applicable

The above data is typical values and does not constitute as specifications.

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## 10. Chemical Stability and Reactivity Information

<b>Stability:</b>	Stable under normal conditions
<b>Conditions to avoid:</b>	Not determined
<b>Hazardous decomposition products:</b>	Oxides of Carbon and Nitrogen
<b>Hazardous Polymerization:</b>	Will not occur
<b>Incompatibility:</b>	Normally un-reactive but avoid strong oxidizing agents, nitrates, nitrites, and strong acids.

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## 11. Toxicological Information

<b>Acute toxicity:</b>	No data available for this product
<b>Routes of Exposure:</b>	Inhalation, Ingestion, Skin contact, Eye contact
<b>Carcinogenicity:</b>	Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA
<b>Epidemiology:</b>	No data available for this product.
<b>Neurotoxicity:</b>	No data available for this product
<b>Teratogenicity:</b>	No data available for this product
<b>Mutagenicity:</b>	No data available to indicate product or any components present at > 0.1% are mutagenic or genotoxic.
<b>Further information:</b>	This product has no known adverse effect on human health.
<b>Reproductive Toxicity:</b>	No data available to indicate product or any components present at > 0.1% may cause reproductive toxicity.
<b>Chronic Toxicity:</b>	No data available to indicate product or any components present at > 1.0% are chronic health hazards.

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## 12. Ecological Information

<b>Ecotoxicity:</b>	This material is not expected to be harmful to aquatic life.
<b>Environmental effects:</b>	Ecological injuries are not known or expected under normal use. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Persistence / degradability:</b>	Not established.
<b>Bioaccumulation:</b>	Not established.
<b>Aquatic toxicity:</b>	Ecological injuries are not known or expected under normal use.
<b>Partition coefficient:</b>	Not established.

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### 13. Disposal Consideration

<b>Waste Codes:</b>	Waste codes should be assigned by the user based on the application for which the product was used.
<b>Disposal instructions:</b>	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b) (4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations
<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. Transportation Information

<b>U.S. DOT classification:</b>	Not regulated
<b>General:</b>	Not regulated as dangerous goods.
<b>TDG classification:</b>	Not regulated as dangerous goods.
<b>U.S. DOT Bulk:</b>	Not regulated
<b>U.S. DOT Non-Bulk:</b>	Not regulated
<b>ICAO / IATA:</b>	Not regulated

Health	Flammability	Reactivity	PPE
0	0	0	A

### 15. Regulatory Information

#### US Federal Regulations

<b>U.S. EPA TSCA Inventory List:</b>	All Components are on the TSCA list
<b>OSHA 29 CFR 1910.1200:</b>	This product is NOT a “Hazardous Chemical” as defined by the OSHA
<b>OSHA 29 CFR 1910.119:</b>	This material is not known to be hazardous by the OSHA highly hazardous process safety standard.
<b>CERCLA/SARA:</b>	No components are listed on the CERCLA/SARA hazardous substance lists.

#### Inventory Status

<b>Canadian Inventory (DSL):</b>	In Compliance
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<b>Canadian Inventory (NDSL):</b>	In Compliance
<b>U.S.A. and Puerto Rico (TSCA):</b>	In Compliance
<b>China Inventory (CCS):</b>	In Compliance
<b>Europe Inventory (EINECS):</b>	In Compliance
<b>Europe Inventory (ELINCS):</b>	In Compliance

**State Regulation**

<b>California Prop. 65:</b>	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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**U.S. Massachusetts RTK:**  
**U.S. Pennsylvania RTK:**  
**U.S. Rhode Island RTK:**

**EPA Regulations**

**CERCLA 302.4 Lists:**  
**Of Hazardous Substances:**

**SARA Title III (313):**

**SARA Title III (311/312):**

**WHIMIS:**

**WHMIS Classification:**

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## 16. Other Information

While this material is furnished in good faith, no warranty expressed or implied of merchantability fitness or otherwise is made as to the product described above. This material is offered for your consideration and Lenox or U.S. Fluids Inc. including its divisions, affiliates and subsidiaries, shall not in any event be liable for special, incidental or consequential damages in connection with its publication. Likewise, no statement made herein shall be construed as a permission or recommendation for use of any product in a manner that might infringe existing patents. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release. The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its misuse.

For Technical Information  
Primary Contact:

LENOX Technical Support  
301 Chestnut St  
East Longmeadow, MA 01028  
1-800-642-0010



PROPYLENE

MATERIAL SAFETY DATA SHEET

DATE PREPARED: April 2010

Items

Quickfire Torch Kit Fuel 5.45 oz

Quickfire Replacement Fuel 5.45 oz

Fat Boy Replacement Fuel Cylinder

## 1. PRODUCT INFORMATION

Product Identifier: Max Power Propylene (Odorized)

Synonyms: Methyl ethylene, Propane

Chemical Family: Olefins

Chemical Formula: C<sub>3</sub>H<sub>6</sub>

Application and Use: Multi-purpose fuel or chemical feedstock

Product Description: Colorless, Hydrocarbon odor composed, stored and handled as liquids under pressure

DOT Hazard Class: Flammable Gas

C.A.S. Number: 115-07-1

UN 1077

### TELEPHONE NUMBERS

Emergency 24hr.

Canada 1-800-265-0212  
(ERP 2-0010-062)

US 1-800-424-9300

### MANUFACTURER/SUPPLIER

BernzOmatic  
1 BernzOmatic Drive  
Medina, NY 14103  
585-798-4949

## 2. REGULATED COMPONENTS

The following components are defined in accordance with sub-paragraph 13(a)(i) to (iv) or Paragraph 14 (a) of the Hazardous Products Act:

NAME	%	CAS #
Propylene	99.5 v/v	115-07-1
Propane	0 – 0.5 v/v	74-98-8

## 3. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

<b>Physical State:</b>	colorless gas @ s.t.p
<b>Specific Gravity:</b>	0.5193 @ 68 degrees F
<b>Vapor Density:</b>	1.46 (air=1)
<b>Boiling Point:</b>	-53.8 degrees F (-47.7 degrees C)
<b>Solubility in Water:</b>	slightly soluble (0.18 wt% @ 100 degrees F)
<b>Melting Point:</b>	-301 degrees F (-185 degrees C)
<b>Vapor Pressure:</b>	160psia@68 degrees F
<b>Volatiles:</b>	100% by volume
<b>Molecular Weight:</b>	42.08
<b>Density:</b>	0.51 g/cc at 15 deg C
<b>Appearance/odor:</b>	colorless gas, stench to allow detection of leaks

## 4. HEALTH HAZARD INFORMATION

### NATURE OF HAZARD

### INHALATION:

May cause central nervous system disorder (e.g. loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage.

Breathing high vapor concentrations (saturated vapors) for a few minutes may be fatal. Saturated vapors can be encountered in confined spaces and/or under conditions of poor ventilation.

May cause irritation, breathing failure, coma and death without any warning odor being sensed.

Inhalation exposure to this product at extremely high concentrations, as in accidental releases in which concentrations reach or exceed the flammable range, may result in cardiac arrhythmias.

**EYE CONTACT:**

Vapors may cause a slight irritation and liquid contact with the eye may cause blindness.

**SKIN CONTACT:**

Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite (cold burns)

**INGESTION:**

Not considered to be a hazard

**INHALATION:**

Exposure to low concentrations may result in a mild anesthetic action. Only exposures to extremely high concentrations will result in physiological effects.

**SYSTEMIC AND OTHER EFFECTS:**

In human studies, propylene at very high concentrations has caused tearing, coughing, and vomiting.

**CARCINOGENICITY:**

No evidence has been listed by the NTP and is listed by the IARC as “not classifiable as to its’ carcinogenicity to humans”.

**TERATOLOGY:**

No evidence.

**REPRODUCTIVE EFFECTS:**

No evidence has been listed.

## **5. FIRST AID MEASURES**

**INHALATION:**

In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

**EYE CONTACT:**

In case of cold burns caused by rapidly expanding gas or vaporizing liquid, get prompt medical attention.

**SKIN CONTACT:**

In case of cold burns caused by rapidly expanding gas or vaporizing liquid, get prompt medical attention.

**INGESTION:**

Do NOT induce vomiting if liquid propylene has been swallowed. Seek immediate medical attention.

## **6. PREVENTITIVE AND CORRECTIVE MEASURES**

**PERSONAL PROTECTION:**

The selection of personal protective equipment varies, depending upon conditions of use. In open systems where contact is likely, wear gas-proof goggles, face shield, chemical resistant overalls, and appropriate thermal/chemical gloves. Where skin and eye contact is unlikely, but may occur as a result of short and/or periodic exposures, wear long sleeves, chemical resistant gloves, gas-proof goggles, and a face shield.

Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

**ENGINEERING CONTROLS:**

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

**HANDLING, STORAGE AND SHIPPING:**

Keep containers closed. Handle and open containers with care.

Store in a cool, well-ventilated place away from incompatible materials. Store as pressurized liquid in a pressure vessel.

Store and load the container at normal (up to 38 deg C) temperature and at atmospheric pressure.

Material will accumulate static charges which may cause a spark. Static charge build-up could become an ignition source. Use proper relaxation and grounding procedures.

Empty containers may contain product residue. Do not pressurize, cut, heat or weld empty container. Do not reuse empty containers without commercial cleaning or reconditioning.

**LAND SPILL:**

Eliminate source of ignition. Keep away, Prevent additional discharge of material, if possible to do so without hazard.

Vapors or dust may be harmful or fatal. Warn occupants of downwind areas.

Allow to evaporate.

Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately.

Take all additional action necessary to prevent and remedy the adverse effects of the spill.

**WATER FILL:**

Eliminate source of ignition. Vapors or dust may be harmful or fatal. Warn occupants and shipping in downwind area.

Allow to evaporate from surface.

Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately.

Take all additional action necessary to prevent and remedy the adverse effects of the spill.

**7. FIRE AND EXPLOSION HAZARD**

Flashpoint: -162 deg F

Auto ignition: 860 deg F (460 deg C)

Flammable Limits: LEL 2.0% UEL 11.1%

**GENERAL HAZARDS:**

Extremely flammable: material will readily ignite at normal temperatures.

Flammable Gas: may readily form flammable mixtures at or above the flash point.

Toxic gases will form upon combustions.

Static Discharge: material may accumulate static charges which may cause a fire.

Auto-refrigeration: drains may become plugged and valves may become inoperable because of the formation of ice due to expanding vapors or vaporizing liquids.

**FIRE FIGHTING:**

Use water spray to cool fire exposed surfaces and to protect personnel.

Shut off fuel to fire if possible to do so without hazard. If a leak or spill has not ignited use water spray to disperse the vapors.

Do not extinguish flames at leak because possibility of uncontrolled explosive re-ignition exists. Cut off fuel and/or allow fire to burn out.

Extinguish small residual fires with dry chemical powder or water spray.

Try to cover liquid spills with foam.

Respiratory and eye protection required for fire fighting personnel.

A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of a SCBA may not be required.

**HAZARDOUS COMBUSTION PRODUCTS:**

Smoke, carbon monoxide, carbon dioxide under thermal decomposition.

**8. REACTIVITY DATA****STABILITY:**

This product is stable. Hazardous polymerization will not occur.



**INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:**

Concentrated mineral acids, halogenated compounds, nitrogen dioxide, oxidizing agents, and molten sulfur.

**HAZARDOUS DECOMPOSITION:**

Incomplete combustion may result in carbon monoxide, carbon dioxide, and other toxic gases.

**9. NOTES**

All components of this product are listed on the TSCA inventory.

Nexen has no knowledge how its customers will handle, store, transfer, distribute or use odorized propylene or non-odorized propylene and therefore makes no warranty regarding the propylene or the odorant after the custody of these materials passes to the customers. It is recommended that Nixon's customers provide their employees and subsequent customers with information regarding the characteristics of propylene, how those characteristics relate to the employees or customers use including the limitation in detecting non-odorized or that may be added during subsequent distribution.

With proper handling, transportation and storage, adding a chemical odorant such as ethyl mercaptan has proven to be a very effective warning device but all odorants have certain limitations. The effectiveness of the odorant may be diminished by a person's sense of smell, by competing odors and by oxidation, which may cause a potentially dangerous situation. Further safety related information is contained on the Material Safety Data Sheet. Industry experience has shown that natural gas streams may contain trace amounts of radon, a naturally occurring radioactive gas, and radioactive particulate decay products which can accumulate in process equipment and storage vessels. These materials emit gamma, alpha and beta forms of radiation. Since gamma radiation can penetrate the walls of intact equipment a potential for exposure could exist at or adjacent to the external surface of process equipment that contain radon-enriched process streams or accumulated deposits of radon decay products. Equipment emitting gamma radiation at dose rates above background should be assumed to be contaminated with internal deposits of alpha- and beta-emitting radon decay products.

Measures should be taken to preclude the inhalation or ingestion of alpha- or beta-emitting materials. Before performing maintenance on contaminated environment, all process shut-down safety and "gas freeing" procedures should be followed and at least a 4 hour lapse should be allowed between process stream shut-down and the opening of equipment repair operations. This time will allow the gamma radiation dose rates to be reduced to background levels. Maintenance personnel should wear appropriate personal protective equipment and follow recommended industrial hygiene/safety and environmental procedures in accordance with prevailing regulations and industry guidelines.

**10. PREPARATION**

Date Prepared     June 2008  
Prepared by       BernzOmatic  
                         1 BernzOmatic Drive  
                         Medina, NY 14103

CAUTION: "The information contained herein relates only to this product or material and may not be valid when used in combination with any other product or material or in any process. If the product is not to be used for a purpose or under conditions which are normal and reasonably foreseeable, this information cannot be relied upon as complete or applicable. For greater certainty, uses other than those described in Section 1 must be reviewed with the supplier. The information contained herein is based on the information available at the indicated date of preparation. This MSDS is for the use of Nexen customers and their employees and agents only. Any further distribution of this MSDS by Nexen customers is prohibited without the written consent of Nexem."

**MATERIAL SAFETY DATA SHEET**  
**Lightweight Body Filler**

**167028 pint**  
**167015 quart**  
**167014 gallon**

Date of Original Preparation: August 27, 2001

Revision Date: January 7, 2005

**Section 1 - Product Information**

**Manufacturer:** Bondo Corporation  
3700 Atlanta Industrial Parkway NW  
Atlanta, GA 30331

**Emergency Telephone:** For US transportation emergencies call -  
Chemtrec: 800-424-9300

For Canadian transportation emergencies  
call - Canutec: 613-996-6666

**Information:** 404-696-2730 (USA 8:30am – 4:30pm Eastern Time)    **Product Use:** Body Filler  
**Stock Number:** 9494

**Emergency Overview**

**Signs of Overexposure:** Nausea, cough, dizziness, weakness, headache, chest pain, lack of coordination, shortness of breath, dermatitis, redness and/or pain in eyes.

**Emergency First Aid:** Move to fresh air, remove contaminated clothing, wash effected skin with soap and water, do not use solvents or thinners; if product gets into eyes, remove contact lenses, flush with water for 15 minutes.

**Handling:** If handling in a confined space wear an organic vapor cartridge respirator (NIOSH / OSHA). For working, wear solvent resistant gloves and safety eye protection designed to guard against liquid splashes. Close all containers tightly after use. Do not eat, drink or smoke in work areas.

**Material Physical Appearance:** Putty

**Other Precautions:** Vapors are heavier than air and may travel along floors. Material has an offensive odor. Prolonged exposure may reduce the user's sensitivity to the odor, thus reducing the effectiveness of odor as a warning against exposure.

**Fire Fighting:** Flammable liquid, refer to Guide 127 of the North American Emergency Guide Book. Forms explosive mixture with air. Vapors are heavier than air and may travel to a source of ignition and flash back.

**NFPA Flammability:** IC

Bondo Corporation has no oversight with respect to the guidance practices or policies or manufacturing processes of other companies handling or using this material. The information given in this MSDS is only related to the product as shipped in its original condition as described in Section 2, "Hazardous Ingredients" and Section 9 "Physical and Chemical Properties".

**Section 2 - Hazardous Ingredients**

Hazardous Ingredient	Percent weight	CAS No.	Vapor Press.	ACGIH TLV	OSHA PEL	LD <sub>50</sub> Oral	LD <sub>50</sub> Derm	LC <sub>50</sub> Inhal	LEL
Styrene	10-20%	100-42-5	4.5	20ppm	100ppm	2650	n. av.	12000	1.1

LD<sub>50</sub> Oral - rat mg/m<sup>3</sup>, LD<sub>50</sub> Dermal - rabbit mg/m<sup>3</sup>, LC<sub>50</sub> Inhalation - rat mg/m<sup>3</sup> unless otherwise specified.

**Section 3 – Hazards Identification**

**Primary Routes of Entry:** Inhalation, skin contact, ingestion, eyes.

**Exposure Effects Acute and Chronic:**

**Inhalation:** Acute: Nasal and respiratory irritation, nausea, cough, shortness of breath, dehydration, allergic respiratory reaction, tiredness, dizziness, weakness, headache, anesthesia, drowsiness, fatigue, chest pain, vomiting, central nervous system effects, narcosis. Liquid can be fatal if aspirated into the lungs.

**Skin contact:** Acute: Extraction of natural oils with resulting dry skin, irritation, allergic skin reactions, redness and dermatitis. May be absorbed through the skin.

**Eye contact:** Acute: Irritation, redness, pain, tearing, blurred vision, sensation of seeing halos around lights and reversible damage.

**Ingestion:** Acute: Gastrointestinal irritation, nausea, vomiting, diarrhea, weakness, headache, dizziness, drowsiness, fatigue, lack of coordination, central nervous system effects, depression.

**Chronic:** Repeated overexposure to this product may cause: central nervous system damage, hearing damage, kidney damage, liver abnormalities, lung damage, cardiac abnormalities, reproductive organ damage, blood effects, eye damage.

**Other Health Effects:**

Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

**Section 4 – First Aid Measures**

**Emergency and First Aid Procedures:** In all cases if symptoms persist, seek medical attention.

**Inhalation** - move to fresh air, give artificial respiration if necessary.

**Skin contact** - remove contaminated clothing, wash with soap and water or recognized skin cleaner. Do not use solvents or thinners.

**Eye contact** - contact lenses must be removed, flush with water for at least 15 minutes, consult a physician immediately.

**Ingestion** - drink one or two glasses of water to dilute. Do not induce vomiting. Consult a physician or poison control center immediately. Treat symptomatically

**Medical Conditions Prone to Aggravation:** pulmonary conditions, skin disorders, liver conditions, kidney conditions, neurological disorders, pregnancy.

## Section 5 – Fire Fighting Measures

**Flash Point (SFCC):** 95F

**Lower Explosive Limit:** 1.1

**NFPA Flammability:** 1 C

**Extinguishing Media:** foam, carbon dioxide, dry chemical or water fog or spray. Water jet or stream is unsuitable.

**Unusual Fire and Explosion Hazards:** Invisible vapors may travel to source of ignition and flash back. Since vapors are heavier than air, dangerous concentrations may not be apparent to casual observation. Keep containers tightly closed, isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat. Fire will produce dense black smoke containing hazardous products of combustion. Symptoms may not be immediately apparent. Obtain medical attention. This product may polymerize when its container is exposed to heat causing an increase in pressure resulting in a violent rupture.

**Special Fire Fighting Procedures:** Water should be used to cool containers exposed to fire. Fire fighting personnel should wear self-contained breathing apparatus.

## Section 6 – Accidental Release

**Steps To Be Taken In Case Material Is Released Or Spilled:** Remove all sources of ignition. Avoid breathing vapors, ventilate confined area. Dike to reduce extent of spill. Remove with inert absorbent using non-sparking tools. If necessary report to applicable government agency.

## Section 7 – Handling and Storage

**Precautions To Be Taken In Handling And Storing:** Minimize contact between the worker and this material. No smoking. Store containers out of sun and away from heat, sparks, and open flames. Close all containers after each use. Consult NFPA and local codes for additional storage requirements.

**Hygienic Practices:** Do not eat, drink or smoke in work areas. Wash hands before eating, smoking, or using the washroom. Launder clothing before reuse.

**Other Precautions:** Vapors are heavier than air and may travel along floors. Do not take internally. Observe label precautions. Keep closures tight and container upright to prevent leakage. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks as required by regulations. Material has an offensive odor. Prolonged exposure may reduce the user's sensitivity to the odor, thus reducing the effectiveness of odor as a warning against exposure.

## Section 8 – Exposure Controls

**Primary Routes of Entry:** Inhalation, skin contact, ingestion, eyes.

**Personal Protective Equipment:** In cases where no monitoring for airborne contaminants has been carried out, assume maximum exposure and use antistatic paint suit, goggles, gloves, and air supplied respiratory equipment. All personal protective equipment should meet NIOSH or OSHA requirements.

**Respiratory Protection:** When personnel, whether spraying or not, are inside a spray booth, ventilation is unlikely to be sufficient to control particulates and chemical vapor in all cases. In such cases air supplied respiratory equipment is recommended until particulate and vapor concentration has fallen below exposure limits. If monitoring demonstrates levels below TLV or PEL wear a NIOSH/MSHA approved respirator device. See safety equipment supplier for evaluation and recommendation.

**Ventilation:** Provide sufficient ventilation to keep vapor concentration below the given TLV and/or PEL.

For baking finishes, exhaust vapors emitted during heating. Remove decomposition products formed during welding or flame cutting of surfaces coated with this product.

**Protective Gloves:** Required for prolonged or repeated contact. Use solvent resistant gloves. Barrier creams are not substitutes for full physical protection. Refer to safety equipment supplier for effective glove recommendations.

**Eye Protection:** Use safety goggles or face shield designed to protect against splash of liquids when spraying or when working with open liquids such as during mixing or pouring.

## Section 9 – Physical and Chemical Properties

**Evaporation Rate:** Slower than ether

**Vapor Density:** Heavier than air

**Vapor Pressure:** 5.2mm Hg @20C

**Weight per Gallon (Specific Grav.):** 8.0 (0.96)

**Odor and Appearance:** pungent organic odor, buff liquid  
**Freezing point, Coefficient of water/oil distribution ,pH:** Not applicable or not available

## **Section 10 – Stability and Reactivity**

**Stability:** Stable

**Incompatibility** (materials to avoid): Oxidizers, alkali metals, nitric acid, sodium hydroxide.

**Hazardous Polymerization:** May occur at temperatures over 150F (65C).

**Conditions to Avoid:** Heat, open flame, sparks.

**Hazardous Combustion Products:** Oxides of carbon and nitrogen, various hydrocarbons, fumes.

## **Section 11 - Toxicological Information**

**Carcinogenicity** (risk of cancer): Styrene is listed by IARC as possibly carcinogenic to humans (Group 2B). The IARC 2B classification is not based on significant new evidence that styrene might be a carcinogen, but on a revised IARC classification scheme and new data on styrene oxide.

**Sensitization** (effects of repeated exposure): These products may cause inhalation sensitization to certain individuals.

**Teratogenicity** (risk of malformation in an unborn fetus): None Known

**Reproductive Toxicity** (risk of sterility): None Known

**Mutagenicity** (risk of heritable genetic effects): Styrene has given mixed results in a number of tests.

**Threshold Limit Value:** None established for this product. For further information, see Section 9 - Hazardous Ingredients

## **Section 12 - Ecological Information**

**General Information:** Avoid runoff into ground, storms or sewer which lead into waterways. Water runoff can cause environmental damage.

**Environmental Impact Data** (percentage by weight):

Ozone Depleters: none      Heavy Metals: None

There are extensive ecological data available on the various components of these products. An adequate representation of all these data is beyond the scope of this document. Please contact the information phone number found in Section 1.

## **Section 13 – Disposal Information**

**Waste Disposal Method:** Dispose of in accordance with federal, state or provincial and local pollution requirements. Clean preferably with a detergent, avoid the use of solvents. This information applies only to the material as manufactured; processing, use or contamination may make this information inappropriate, inaccurate or incomplete. The generator of the waste has the responsibility for proper waste classification, transportation and disposal.

**Other Information:** When discarded in its supplied form, these products meet the hazard criteria of "ignitability" and must be considered as hazardous waste D001.

## **Section 14 – Transportation Information**

**US Ground Shipments:**

Proper Shipping Name: Resin Solution

UN ID Number: UN1866

Hazard Class: 3

Packing Group: III

Hazard Warning Label: Flammable Liquid

## **Section 15 - Regulatory Information**

**OSHA:** These products are considered hazardous under the Federal OSHA Hazard Communication Standard.

**WHMIS:** B2;D1A;D2A

**SARA Title III:**

*Section 302 Extremely Hazardous Substances:* None

*Section 311 / 312 Hazard Categories:* Immediate health, delayed health, fire hazard.

*Section 313 Toxic Chemicals:* styrene. You may be required to submit this MSDS to state and local emergency response agencies (SERC & LEPC) and to your local fire department. Also, you may be affected by other sections of this law, depending on the chemicals and amounts that you inventory at your location. To learn more about your responsibilities, call the EPA Hotline (800) 535-0202

**TSCA status:** All ingredients are TSCA registered.

**Proposition 65: WARNING:** This product contains a chemical known to the State of California to cause cancer.

**NFPA 704:** Health 2, Fire 2, Reactivity 0

## **Section 16 - Preparation Information**

Prepared by Bondo Corporation Research and Development Department

Phone: 404-696-2730

Do not handle until the manufacturer's safety precautions have been read and understood. Regulations require that all employees be trained on Material Safety Data Sheets for all products with which they come in contact.

While Bondo Corporation believes that the data contained herein are accurate and derived from qualified sources, the data are not to be taken as a warranty or representation for which Bondo 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, provincial and local laws and regulations.



## Material Safety Data Sheet

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**PRODUCT NAME:** 3M™ Bondo Fiberglass Resin Kit, P.N. 401, 401C, 402, 402M, 402C, 402ES, 402T, 402Z, 404, 404C, 404Z

**MANUFACTURER:** 3M

**DIVISION:** Automotive Aftermarket

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

**EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)**

**Issue Date:** 08/04/11

**Supersedes Date:** 09/22/09

**Document Group:** 24-2437-2

### ID Number(s):

60-4550-4826-8, 60-4550-5662-6, 60-4550-5663-4, 60-4550-5664-2, 60-4550-5665-9, 60-4550-5666-7, 60-4550-5667-5, 70-0080-0014-6, 70-0080-0015-3, 70-0080-0016-1, 70-0080-0148-2, 70-0080-0149-0, 70-0080-0150-8, 70-0080-0151-6, 70-0080-0152-4, 70-0080-0153-2

**This product is a kit or a multipart product which consists of multiple, independently packaged components. An MSDS for each of these components is included. Please do not separate the component MSDSs from this cover page. The document numbers of the MSDSs for components of this product are:**

24-2440-6, 24-2429-9

### Revision Changes:

Kit: Component document group number(s) was modified.

Page Heading: Product name was modified.

Kit: Product name was modified.

Kit: ID Number(s) was modified.

Section 1: Manufacturer name was added.

Section 16: Disclaimer (first paragraph) was added.

Section 16: Disclaimer (second paragraph) was added.

Section 16: Web address was added.

Section 1: Address was added.

Copyright was added.

Company logo was added.

Telephone header was added.

Company Telephone was added.

Section 1: Emergency phone information was added.

Company Logo was deleted.

Copyright was deleted.

Kit: Manufacturer's name was deleted.

Kit: Emergency phone information was deleted.

Kit: Disclaimer (first paragraph) was deleted.

Kit: Disclaimer (second paragraph) was deleted.

Kit: Address line 1 was deleted.

Kit: Address line 2 was deleted.

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ Bondo® Fiberglass Resin, P.N. 401, 401C, 402, 402C, 402ES, 402T, 402Z, 404, 404C, 404Z

**MANUFACTURER:** 3M

**DIVISION:** Automotive Aftermarket

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

**EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)**

**Issue Date:** 08/04/11

**Supersedes Date:** 05/23/11

**Document Group:** 24-2429-9

#### Product Use:

Intended Use: Automotive

Specific Use: Fiberglass Repair Resin

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
POLYESTER POLYMER	Trade Secret	40 - 70
SILICA	7631-86-9	0.5 - 1.5
STYRENE MONOMER	100-42-5	30 - 60

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Paste

**Odor, Color, Grade:** Pungent organic odor. Light straw color.

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. May cause target organ effects. Contains a chemical or chemicals which can cause cancer.



## 3.2 POTENTIAL HEALTH EFFECTS

### Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

### Skin Contact:

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

### Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May be absorbed following inhalation and cause target organ effects.

### Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

### Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Prolonged or repeated exposure may cause:

Immunological Effects: Signs/symptoms may include alterations in the number of circulating immune cells, allergic skin and /or respiratory reaction, and changes in immune function.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

### Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u><b>Ingredient</b></u>	<u><b>C.A.S. No.</b></u>	<u><b>Class Description</b></u>	<u><b>Regulation</b></u>
STYRENE MONOMER	100-42-5	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperature	No Data Available
Flash Point	80 °F - 82 °F [Test Method: Closed Cup]
Flammable Limits(LEL)	1.1 %
Flammable Limits(UEL)	No Data Available
OSHA Flammability Classification:	Class IC Flammable Liquid

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Water may be used to blanket the fire. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

### 6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

#### Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Cover spill area with a fire-extinguishing foam. An aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Seal the container.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## **SECTION 7: HANDLING AND STORAGE**

### **7.1 HANDLING**

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Avoid breathing of vapors, mists or spray. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid contact with oxidizing agents. Avoid skin contact.

### **7.2 STORAGE**

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed. Do not store containers on their sides. Store away from oxidizing agents.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 ENGINEERING CONTROLS**

Use in an enclosed process area is recommended. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Use in a well-ventilated area. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

### **8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

#### **8.2.1 Eye/Face Protection**

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Indirect Vented Goggles

.

#### **8.2.2 Skin Protection**

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Polyvinyl Alcohol (PVA)

.

#### **8.2.3 Respiratory Protection**

Avoid breathing of vapors, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges

. Select and use respiratory protection to prevent an inhalation exposure based on the results of an exposure assessment. Consult with your respirator manufacturer for selection of appropriate types of respirators.

#### **8.2.4 Prevention of Swallowing**

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

### **8.3 EXPOSURE GUIDELINES**

<u><b>Ingredient</b></u>	<u><b>Authority</b></u>	<u><b>Type</b></u>	<u><b>Limit</b></u>	<u><b>Additional Information</b></u>
SILICA	CMRG	TWA, as respirable dust	3 mg/m3	
SILICA, AMORPHOUS	OSHA	TWA concentration	0.8 mg/m3	
SILICA, AMORPHOUS	OSHA	TWA	20 millions of particles/cu. ft.	
STYRENE MONOMER	ACGIH	TWA	20 ppm	
STYRENE MONOMER	ACGIH	STEL	40 ppm	
STYRENE MONOMER	OSHA	TWA	100 ppm	
STYRENE MONOMER	OSHA	CEIL	200 ppm	

**SOURCE OF EXPOSURE LIMIT DATA:**

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	Pungent organic odor. Light straw color.
<b>General Physical Form:</b>	Liquid
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	80 °F - 82 °F [ <i>Test Method:</i> Closed Cup]
<b>Flammable Limits(LEL)</b>	1.1 %
<b>Flammable Limits(UEL)</b>	<i>No Data Available</i>
<b>Boiling Point</b>	180 °F - 415 °F
<b>Density</b>	1.14 g/ml
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Vapor Pressure</b>	3.45 mmHg
<b>Vapor Pressure</b>	<i>No Data Available</i>
<b>Specific Gravity</b>	1.14 [ <i>Ref Std:</i> WATER=1]
<b>pH</b>	<i>No Data Available</i>
<b>Melting point</b>	<i>No Data Available</i>
<b>Solubility In Water</b>	<i>No Data Available</i>
<b>Solubility in Water</b>	Negligible
<b>Evaporation rate</b>	[ <i>Details:</i> Slower than ether.]
<b>Hazardous Air Pollutants</b>	33.8 % weight [ <i>Test Method:</i> Calculated]
<b>Volatile Organic Compounds</b>	386 g/l [ <i>Test Method:</i> calculated SCAQMD rule 443.1]
<b>Volatile Organic Compounds</b>	33.8 % weight [ <i>Test Method:</i> calculated per CARB title 2]
<b>Kow - Oct/Water partition coef</b>	<i>No Data Available</i>
<b>Percent volatile</b>	33.8 % weight
<b>Percent volatile</b>	42.61 % volume
<b>VOC Less H2O &amp; Exempt Solvents</b>	386 g/l [ <i>Test Method:</i> calculated SCAQMD rule 443.1]
<b>Viscosity</b>	<i>No Data Available</i>

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:**

**10.1 Conditions to avoid**

Heat  
Sparks and/or flames

**10.2 Materials to avoid**

Strong acids  
Strong bases  
Strong oxidizing agents

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

**Hazardous Decomposition or By-Products**

**Substance**

Hydrocarbons  
Carbon monoxide  
Carbon dioxide

**Condition**

Not Specified  
Not Specified  
Not Specified

**SECTION 11: TOXICOLOGICAL INFORMATION**

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

**SECTION 12: ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION**

Not determined.

**CHEMICAL FATE INFORMATION**

Not determined.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

**SECTION 14: TRANSPORT INFORMATION**

**ID Number(s):**

LB-K100-0410-9, LB-K100-0411-0, LB-K100-0411-1, LB-K100-0537-7, LB-K100-0537-8, LB-K100-0537-9, LB-K100-0538-0, LB-K100-0538-1, LB-K100-0538-2, 41-0003-6688-4

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## SECTION 15: REGULATORY INFORMATION

### US FEDERAL REGULATIONS

Contact 3M for more information.

#### 311/312 Hazard Categories:

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

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
STYRENE MONOMER	100-42-5	30 - 60

### STATE REGULATIONS

Contact 3M for more information.

### CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

### INTERNATIONAL REGULATIONS

Contact 3M for more information.

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

## SECTION 16: OTHER INFORMATION

#### NFPA Hazard Classification

Health: 2 Flammability: 3 Reactivity: 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.

**Reason for Reissue:** The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

#### Revision Changes:

Section 14: ID Number(s) Template 1 was modified.

Section 14: ID Number Heading Template 1 was added.

**DISCLAIMER:** The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a

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## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ Bondo® MEKP Liquid Hardener for Fiberglass Resin Kit, P.N. 401, 401C, 402, 402C, 402T, 402Z, 404, 404C, 404Z

**MANUFACTURER:** 3M

**DIVISION:** Automotive Aftermarket

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

**EMERGENCY PHONE:** 1-800-364-3577 or (651) 737-6501 (24 hours)

**Issue Date:** 04/29/11

**Supersedes Date:** 01/21/10

**Document Group:** 24-2440-6

#### Product Use:

Intended Use: Automotive  
Specific Use: Curing Agent

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
DIMETHYL PHTHALATE	131-11-3	30 - 60
METHYL ETHYL KETONE PEROXIDE	1338-23-4	15 - 40
2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE	6846-50-0	10 - 30
METHYL ETHYL KETONE	78-93-3	1 - 5
HYDROGEN PEROXIDE	7722-84-1	0.5 1.5
WATER	7732-18-5	0.5 1.5

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Odor, Color, Grade:** Slight odor. Clear.

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. May cause chemical



eye burns. May cause severe skin irritation. May cause target organ effects.

## 3.2 POTENTIAL HEALTH EFFECTS

### Eye Contact:

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

### Skin Contact:

Severe Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

Prolonged or repeated exposure may cause:

Dermal Effects: Signs/symptoms may include changes in skin pigmentation and/or coloration.

### Inhalation:

May be harmful if inhaled.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May be absorbed following inhalation and cause target organ effects.

### Ingestion:

May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

### Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

**Autoignition temperature**  
**Flash Point**

*No Data Available*  
> 200 °F [Test Method: Closed Cup] [Details: No flash to

Flammable Limits(LEL)

Flammable Limits(UEL)

boiling point.]

*No Data Available*

*No Data Available*

## 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

## 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Water may be used to blanket the fire. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

### 6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

### Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## SECTION 7: HANDLING AND STORAGE

### 7.1 HANDLING

Avoid eye contact. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid breathing of vapors, mists or spray. Avoid skin contact. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid contact with oxidizing agents.

## 7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container tightly closed. Store away from oxidizing agents. Store in a cool, dry place.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Provide appropriate local exhaust for cutting, grinding, sanding or machining. Use in a well-ventilated area. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Avoid eye contact. Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Indirect Vented Goggles

.

#### 8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Nitrile Rubber

Polymer laminate

.

#### 8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Fullface supplied-air respirator

Half facepiece or fullface air-purifying respirator with organic vapor cartridges and P95 particulate prefilters

. Select and use respiratory protection to prevent an inhalation exposure based on the results of an exposure assessment. Consult with your respirator manufacturer for selection of appropriate types of respirators.

#### 8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

### 8.3 EXPOSURE GUIDELINES

<u><b>Ingredient</b></u>	<u><b>Authority</b></u>	<u><b>Type</b></u>	<u><b>Limit</b></u>	<u><b>Additional Information</b></u>
2-Butanone	ACGIH	TWA	200 ppm	
2-Butanone	ACGIH	STEL	300 ppm	
2-Butanone	OSHA	TWA	590 mg/m3	
DIMETHYL PHTHALATE	ACGIH	TWA	5 mg/m3	
DIMETHYL PHTHALATE	OSHA	TWA	5 mg/m3	
HYDROGEN PEROXIDE	ACGIH	TWA	1 ppm	
HYDROGEN PEROXIDE	OSHA	TWA	1.4 mg/m3	
METHYL ETHYL KETONE	ACGIH	TWA	200 ppm	
METHYL ETHYL KETONE	ACGIH	STEL	300 ppm	
METHYL ETHYL KETONE	OSHA	TWA	590 mg/m3	
METHYL ETHYL KETONE PEROXIDE	ACGIH	CEIL	0.2 ppm	

**SOURCE OF EXPOSURE LIMIT DATA:**

ACGIH: American Conference of Governmental Industrial Hygienists  
 CMRG: Chemical Manufacturer Recommended Guideline  
 OSHA: Occupational Safety and Health Administration  
 AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Odor, Color, Grade:</b>	Slight odor. Clear.
<b>General Physical Form:</b>	Liquid
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	> 200 °F [ <i>Test Method:</i> Closed Cup] [ <i>Details:</i> No flash to boiling point.]
<b>Flammable Limits(LEL)</b>	<i>No Data Available</i>
<b>Flammable Limits(UEL)</b>	<i>No Data Available</i>
<b>Boiling Point</b>	244 °F
<b>Density</b>	1.128 g/ml
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Vapor Pressure</b>	<i>No Data Available</i>
<b>Specific Gravity</b>	1.128 [ <i>Ref Std:</i> WATER=1]
<b>pH</b>	<i>No Data Available</i>
<b>Melting point</b>	<i>No Data Available</i>
<b>Solubility In Water</b>	<i>No Data Available</i>
<b>Solubility in Water</b>	Negligible
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Hazardous Air Pollutants</b>	43.0 % weight [ <i>Test Method:</i> Calculated]
<b>Volatile Organic Compounds</b>	903 g/l [ <i>Test Method:</i> calculated SCAQMD rule 443.1]
<b>Volatile Organic Compounds</b>	80.0 % weight [ <i>Test Method:</i> calculated per CARB title 2]
<b>Kow - Oct/Water partition coef</b>	<i>No Data Available</i>
<b>Percent volatile</b>	9.7 % weight
<b>VOC Less H2O &amp; Exempt Solvents</b>	913 g/l [ <i>Test Method:</i> calculated SCAQMD rule 443.1]
<b>Viscosity</b>	<i>No Data Available</i>

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:**

**10.1 Conditions to avoid**

Light  
 Sparks and/or flames  
 Temperatures above the boiling point

**10.2 Materials to avoid**

Strong oxidizing agents  
 Alkali and alkaline earth metals  
 Strong acids

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

## Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

## SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

### CHEMICAL FATE INFORMATION

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Incinerate in a permitted hazardous waste incinerator in the presence of a combustible material. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

**EPA Hazardous Waste Number (RCRA):** D035 (Methyl ethyl ketone)

Since regulations vary, consult applicable regulations or authorities before disposal.

## SECTION 14: TRANSPORT INFORMATION

LB-K100-0411-2, LB-K100-0414-8, LB-K100-0414-9

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## SECTION 15: REGULATORY INFORMATION

### US FEDERAL REGULATIONS

Contact 3M for more information.

#### 311/312 Hazard Categories:

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

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
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DIMETHYL PHTHALATE

131-11-3

30 - 60

## STATE REGULATIONS

Contact 3M for more information.

## CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

The components of this product are listed on the Canadian Domestic Substances List.

Contact 3M for more information.

## INTERNATIONAL REGULATIONS

Contact 3M for more information.

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

## SECTION 16: OTHER INFORMATION

### NFPA Hazard Classification

**Health:** 3 **Flammability:** 1 **Reactivity:** 1 **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:** 3 **Flammability:** 1 **Reactivity:** 1 **Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS®) 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® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

**Reason for Reissue:** The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

### Revision Changes:

Section 16: Disclaimer (second paragraph) was modified.

Section 3: Potential effects from skin contact information was modified.

Section 3: Potential effects from inhalation information was modified.

Section 3: Potential effects from ingestion information was modified.

Section 8: Eye/face protection information was modified.

Section 8: Skin protection - recommended gloves information was modified.

Section 8: Respiratory protection - recommended respirators information was modified.

Section 4: First aid for ingestion (swallowing) - decontamination - was modified.

Section 4: First aid for ingestion (swallowing) - medical assistance - was modified.

Section 14: Transportation legal text was modified.

Section 9: Boiling point information was modified.

Section 5: Flammable limits (UE) information was modified.

Section 5: Flammable limits (LEL) information was modified.

Section 9: Property description for optional properties was modified.

Section 8: Respiratory protection - recommended respirators guide was modified.

Section 9: Flammable limits (LEL) information was modified.  
Section 9: Flammable limits (UEL) information was modified.  
Section 8: Exposure guidelines ingredient information was modified.  
Section 6: Personal precautions information was modified.  
Section 6: Environmental procedures information was modified.  
Section 6: Methods for cleaning up information was modified.  
Section 10: Materials to avoid physical property was modified.  
Section 10: Conditions to avoid physical property was modified.  
Section 9: Density information was added.  
Section 6: 6.2. Environmental precautions heading was added.  
Section 6: 6.1. Personal precautions, protective equipment and emergency procedures heading was added.  
Section 16: Web address was added.  
Section 1: Address was added.  
Copyright was added.  
Company logo was added.  
Section 6: Clean-up methods heading was added.  
Telephone header was added.  
Company Telephone was added.  
Section 1: Emergency phone information was added.  
Section 1: Emergency phone information was deleted.  
Company Logo was deleted.  
Copyright was deleted.  
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## **CAMPBELL HAUSFELD AIR TOOL OIL, 04215**

### **MSDS Number**

CJVXL

### **National Stock Number**

9150-00N092960

### **Product Name**

CAMPBELL HAUSFELD AIR TOOL OIL, 04215

### **Manufacturer**

76 PRODUCTS CO

### **Product Identification**

Product ID: CAMPBELL HAUSFELD AIR TOOL OIL, 04215

MSDS Date: 12/19/1994

FSC: 9150

NIIN: 00N092960

Status Code: A

MSDS Number: CJVXL

### **Responsible Party**

76 PRODUCTS CO

1201 W 5TH ST

LOS ANGELES , CA 90017

US

Emergency Phone: 800-356-3129

Info Phone: 213-977-7589

Cage: 23034

### **Contractor**

76 PRODUCTS CO

LOS ANGELES, CA 90017

US

213-977-7589

Cage: 23034

### **Ingredients**

SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPH.; (SOLVENT

CAS: 64742-88-7

OSHA PEL100 PPM

ACGIH TLV: 100 PPM

OIL MIST

OSHA PEL5 MG/M3

ACGIH TLV: 5 MG/M3

STODDARD SOLVENT

CAS: 8052-41-3

RTECS: WJ8925000





OSHA PEL2900 MG/M3;500 PPM  
ACGIH TLV: 525 MG/M3;100 PPM

HYDROTREATED HEAVY PARAFFINIC DISTILLATE (PETROLEUM);

CAS: 64742-54-7

RTECS: PY8035500

OSHA PEL5 MG/M3

ACGIH TLV: 5 MG/M3

SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE (PETROLEUM);

CAS: 64742-65-0

RTECS: PY8038500

OSHA PEL5 MG/M3

ACGIH TLV: 5 MG/M3

SOLVENT DEWAXED LIGHT PARAFFINIC DISTILLATE (PETROLEUM);

CAS: 64742-56-9

RTECS: PY8039500

OSHA PEL5 MG/M3

ACGIH TLV: 5 MG/M3

## Hazards

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:EYE: CNTCT MAY CAUSE MILD EYE IRRIT INCLUDING STINGING, WATERING & REDNESS. SKIN: SKIN IRRITANT. CNTCT MAY CAUSE REDNESS, BURNING, DRYING & CRACKING OF SKIN & SKIN DMG. NO HARMFUL EFTS FROM SKIN ABSORPTION HAVE BEEN REPORTED. INHAL: NO INFO AVAIL. STUDIES BY OTHER EXPOS ROUTES SUGGEST LOW DEGREE OF TOXICITY BY INHAL. INGEST: LOW DEGREE OF TOXICITY BY INGEST. ASPIR HAZ - THIS MATL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING & CAUSE LUNG INFLAMMATION & DMG. EFTS OF OVEREXP MAY INCLUDE IRRIT OF NOSE & THROAT, IRRIT OF DIGESTIVE TRACT & SIGNS OF NERVOUS SYSTEM DEPRESS (EG, HDCH, DROW, DIZZ, LOSS OR COORD & FATG). (EFTS OF OVEREXP)  
Effects of Overexposure:HLTH HAZS: CANCER: INADEQ DATA AVAIL TO EVALUATE CANCER HAZ OF THIS MATL. SEE SECTION 11 FOR CARCINOGENICITY INFO ON INDIVIDUAL COMPONENTS. TARGET ORGANS: INADEQ DATA AVAIL FOR THIS MATL. SEE SECTION 11 FOR TARGET-ORGAN TOXICITY INFO OF INDIVIDUAL COMPONENTS. DEVELOPMENTAL: INADEQ DATA AVAIL FOR THIS MATL. SEE SECTION 11 FOR DEVELOPMENTAL TOXICITY INFO ON INDIVIDUAL COMPONENTS. OTHER COMMENTS: REPORTS HAVE ASSOC RPTD & PRLNGD OCCUPATIONAL OVEREXP TO SOLVENTS W/PERMANENT BRAIN & NERVOUS SYSTEM DMG (SOMETIMES REFERRED TO AS SOLVENT OR PAINTERS' SYNDROME). INTENTIONAL MISUSE BY DELIB CONC & INHAL MATL MAY BE HARMFUL OR FATAL.  
Medical Cond Aggravated by Exposure:CONDITIONS AGGRAVATED BY EXPOSURE MAY INCLUDE SKIN DISORDERS AND RESPIRATORY (ASTHMA-LIKE) DISORDERS.

## First Aid

First Aid:EYE: IF IRRIT/REDNESS DEVELOPS, MOVE AWAY FROM EXPOS & INTO FRESH AIR. FLUSH EYES W/CLEAN WATER FOR AT LST 15 MIN. IF SYMPS PERSIST, SEEK MED ATTN. SKIN: WIPE MATL FROM SKIN, REMOVE CONTAM SHOES & CLT HG & FLUSH AFFECTED AREA(S) W/LG AMTS OF WATER. IF SKIN SURF DAMAGED, APPLY CLEAN DRESSING & SEEK MED ATTN. IF SKIN SURF NOT DAMAGED, CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING W/MILD



SOAP & WATER &, IF NEC, WATERLESS SKIN CLEANSER. IF IRRIT/REDNESS DEVELOPS, SEEK MED ATTN. INHAL: IF RESP SYMPS DEVELOP, MOVE AWAY FROM EXPOS SOURCE & INTO FRESH AIR. IF SYMPS PERSIST, SEEK MED ATTN. IF VICTIM NO T BRTHG, IMMED BEGIN ARTF (SUPDAT)

## Fire Fighting

Flash Point Method:PMCC  
Flash Point:=170.C, 338.F  
Lower Limits:NO DATA  
Upper Limits:NO DATA  
Extinguishing Media:DRY CHEM, CARBON DIOXIDE, HALON, FOAM OR WATER SPRAY RECOM. WATER/FOAM MAY CAUSE FROTHING OF MATLS HEATED >212F. HALON MAY DECOMPOSE INTO TOX MATLS. CARBON (STATE REG INFO)  
Fire Fighting Procedures:USE NIOSH APPRVD SCBA & FULL PROT EQUIP . IN ADDN, WEAR OTHER APPROP PROT EQUIP AS CNDTNS WARRANT. ISOLATE DMG AREA, KEEP UNAUTH PERS OUT. STOP SPILL/RELS IF IT CAN BE DONE W/MINIMAL RISK. MOVE UNDAMAGED CNTNRS FROM DANGER AREA IF IT CAN BE DONE W/MINIMAL RISK. WATER SPRAY MAY BE (STATE REG INFO)  
Unusual Fire/Explosion Hazard:THIS MATERIAL MAY BURN, BUT WILL NOT IGNITE READILY. VAPORS ARE HEAVIER THAN AIR AND CAN ACCUMULATE IN LOW AREAS. IF CONTAINER IS NOT PROPERLY COOLED, IT CAN EXPLODE IN THE HEAT OF A FIRE. OSHA FLAMMA BILITY CLASS: NOT REGULATED. BURN RATE: (SOLIDS ONLY): NO DATA.

## Accidental Release

Spill Release Procedures:MAY IGNITE. KEEP ALL IGNIT SOURCES AWAY. USE EXPLO-PROOF EQUIP. STAY UPWIND & AWAY FROM AREA. ISOLATE DANGER AREA & KEEP UNAUTH PERS OUT. STOP SPILL/RELS IF IT CAN BE DONE W/MINIMAL RISK. WEAR APPROP PROT EQUIP INCL NIOSH APPRVD RESP PROT AS CNDTNS WARRANT. PVNT SPILL MATL FROM ENTERING SEWERS, STORM DRAINS, OTHER UNAUTH TREATMENT DRAINAGE SYS & NATRL WATERWAYS. DIKE FAR AHEAD (TOXICOLOGICAL INFO)

## Handling

Handling and Storage Precautions:KEEP CNTNR(S) TIGHTLY CLSD. USE & STORE MATL IN COOL, DRY, WELL-VENTD AREAS AWAY FROM HEAT & ALL IGNIT SOURCES. STORE ONLY IN APPRVD CNTNRS. KEEP AWAY FROM ANY INCOMPAT MATL. PROTECT CNTNR(S) AGAINST PHYSICAL DMG. DO NOT ENTER CONFINED SPACES SUCH AS TANKS/PITS W/OUT FOLLOWING (TRANSPORT INFO)  
Other Precautions:"EMPTY" CNTNRS RETAIN RESIDUE (LIQ &/OR VAP) & MAY BE DANGEROUS. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CNTNRS TO HEAT, FLAME, SPKS OR OTHER IGNIT SOURCES. THEY MAY E XPLODE & CAUSE INJURY/DEATH. "EMPTY" DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED & PROMPTLY (SARA REG INFO)

## Exposure Controls

Respiratory Protection:THE USE OF NIOSH APPROVED RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS ARE EXPECTED TO EXCEED THE ESTABLISHED EXPOSURE LIMITS (SEE INGREDIENT SECTION). DEPENDING ON THE AIRBORNE CONCENTRATION , USE A NIOSH APPROVED RESPIRATOR WITH APPROPRIATE CARTRIDGES OR SUPPLIED AIR RESPIRATOR.

Ventilation:IF CURRENT VENT PRACTICES ARE NOT ADEQUATE TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS, ADDNL VENT OR EXHAUST SYSTEMS MAY BE REQD.

Protective Gloves:IMPERMEABLE GLOVES.

Eye Protection:ANSI APPROVED CHEMICAL WORKERS GOGGLES .

Other Protective Equipment:EYE WASH AND DELUGE SHOWER MEETING ANSI DESIGN CRITERIA . IT IS RECOMMENDED THAT IMPERVIOUS CLOTHING BE WORN.

Work Hygienic Practices:THOROUGHLY CLEAN SHOES AND WASH CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

FIRST AID PROC: RESP. IF BRTHG DFCLTY DEVELOPS, OXYG SHOULD BE ADMIN BY QUALIFIED PERS. SEEK IMMED MED ATTN. INGEST: ASPIR HAZ. DO NOT INDUCE VOMIT/GIVE ANYTHING BY MOUTH BECAUSE MATL CAN ENTER LUNGS & CAUSE SEV LUNG DMG. IF DROWSY/UNCON, PLACE ON LEFT SIDE W/HEAD DOWN. IF POSS, DO NOT LEAVE UNATTENDED. SEEK MED ATTN.



## Chemical Properties

Boiling Pt: >179.4C, 355.F  
Melt/Freeze Pt: M.P/F.P Text: NO DATA  
Vapor Pres: NO DATA  
Vapor Density: >1 (AIR=1)  
Spec Gravity: 0.85  
pH: NO DATA  
Viscosity: 12.5 CST @ 40C  
Evaporation Rate & Reference: Solubility in Water: NEGLIGIBLE  
Appearance and Odor: CLEAR YELLOW LIQUID; CHARACTERISTIC PETROLEUM ODOR.  
Percent Volatiles by Volume: 30.5

## Stability

Stability Indicator/Materials to Avoid: YES  
AVOID CONTACT WITH STORNG OXIDIZING AGENTS.  
Stability Condition to Avoid: EXTENDED EXPOSURE TO HIGH TEMPERATURES CAN CAUSE DECOMPOSITION. STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.  
Hazardous Decomposition Products: COMBUSTION CAN YIELD MAJOR AMOUNTS OF OXIDES OF CARBON AND MINOR AMOUNTS OF OXIDES OF SULFUR AND NITROGEN.

## Disposal

Waste Disposal Methods: MATL AS PRDCED, IS NOT EPA "LISTED" HAZ WASTE, BUT HAS NOT BEEN EVALUATED USING TOXICITY CHARACT LEACHING PROC. EPA HAZ WASTE CLASSIFICATION HAS NOT BEEN DETERMINED. EMPTY CNTNRS MUST BE HANDLED W/CAR E DUE TO MATL RESIDUE. EMPTY DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED & PROMPTLY RETURNED TO SUPPLIER OR SHIPPED TO (ECOLOGICAL INFO)

## Toxicology

Toxicological Information: NO DEFINITIVE INFO AVAILABLE ON CARCINOGENICITY, MUTAGENICITY, TARGET ORGANS OR DEVELOPMENTAL TOXICITY. --SPILL PROC: OF SPILL FOR LATER RECOVERY OR DISPOSAL. SPILLED MATL MAY BE ABSORBED INTO AN APPR OP ABSORBENT MATL. NOTIFY FIRE AUTHS & APPROP FED, STATE & LOCAL AGENCIES. IMMED CLEANUP OF ANY SPILL IS RECOM. IF SPILL OF ANY AMOUNT IS MADE INTO OR UPON NAVIGABLE WATERS, THE CONTIGUOUS ZONE, OR AD JOINTING SHORELINES, NOTIFY NATIONAL RESPONSE CENTER (PHONE NUMBER 800-424-8802).

## Other Information

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.

## Ecology

Ecological: N/P. --WASTE DISP METH: DRUM RECONDITIONER. ALL OTHER CNTNRS SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER & I/A/W GOVERNMENTAL REGS. ANY RINSATE MAY BE CONSIDERED RCRA HAZ WASTE & MUST BE D ISPOSED OF W/CARE. STATE & LOCAL REQS FOR WASTE DISPOSAL MAY BE MORE RESTRICTIVE OR OTHERWISE DIFFERENT FROM FED REGS. CONSULT FEDERAL, STATE & LOCAL REGS REGARDING PROPER DISPOSAL OF THIS MATL.

## Transport

Transport Information: HAZARD CLASS OR DIVISION: NOT REGULATED.  
--HNDLG/STOR PRECS: PROPER ENTRY PROCS SUCH AS ASTM D-4276 & 29 CFR 1910.146. USE OF NIOSH APPRVD RESP PROT IS ADVISED WHEN CONCS EXCEED ANY ESTABLISHED EXPOS LIMITS. WASH THOROUGHLY AFTER HNDLG. DO NOT WEAR CONTAM CLTHG & SHOES. USE GOOD PERSONAL HYGIENE PRACTICE.



## Regulatory

SARA Title III Information: THIS MATERIAL CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA 313 AND 40 CFR 372: NONE. --OTHER PRECS: SHIPPED TO SUPPLIER OR DRUM RECONDITIONER. ALL CNTNRS SHOULD BE DI SPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER & I/A/W FEDERAL, STATE & LOCAL GOVT REGS. BEFORE WORKING ON OR IN TANKS WHICH CONTAIN OR HAVE CONTAINED THIS MATL, REFER TO OCCUPATIONAL SAFETY & HEALTH ADM INISTRATION REGS, ZNSI Z49.1 & OTHER GOVERNMENTAL & INDUSTRIAL REFERENCES PERTAINING TO CLEANING, REPAIRING, WELDING OR OTHER CONTEMPLATED OPERATIONS.

Federal Regulatory Information: THIS MATERIAL HAS NOT BEEN IDENTIFIED AS A CARCINOGEN BY NTP, IARC OR OSHA. FOR CARCINOGENICITY INFO ON INDIVIDUAL COMPONENTS, SEE SECTION 11, TOXICOLOGICAL INFO. EPA (CERCLA) REPORTABLE QUANTITY: NON E.

State Regulatory Information: WARNING: THIS MATERIAL CONTAINS THE FOLLOWING CHEMICALS WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM, AND ARE SUBJECT TO THE REQUIREMENTS OF CAL IFORNIA PROPOSITION 65 (CA HEALTH & SAFETY CODE SECTION 25249.5): NONE KNOWN. --EXTING MEDIA: DIOXIDE CAN DISPLACE OXYGEN. USE CAUTION WHEN APPLYING HALON OR CARBON DIOXIDE IN CONFINED SPACES. --FIRE FIGHT PROC: USEFUL IN MINIMIZING OR DISPERSING VAPS. COOL EQUIP EXPOSED TO FIRE W/WATER, IF IT CAN B E DONE W/MINIMAL RISK. AVOID SPREADING BURNING LIQUID W/WATER USED FOR COOLING PURPOSES.

**1. Product and Company Identification**

Polytek Development Corp., 55 Hilton St., Easton, PA 18042, 610-559-8620

Product Name: **FUMED SILICA**

Chemical Family: Silica

**2. Hazards Identification**

PRIMARY ROUTE(S) OF ENTRY: Inhalation, skin or eye contact

EYE: May cause irritation.

SKIN: May cause drying.

INGESTION: No adverse effects expected.

INHALATION: Temporary discomfort due to inhalation of dust concentrations above established standards.

CHRONIC EFFECTS: None identified.

CARCINOGENICITY: Not a designated a carcinogen by OSHA, NTP, or IARC.

**3. Composition/Information on Ingredients**

<u>Ingredient/CAS #</u>	<u>Exposure Limits</u>
Fumed Silica (Synthetic amorphous silicon dioxide, crystalline-free) / 112945-52-5	ACGIH TLV: 2 mg/m <sup>3</sup> TWA OSHA PEL: 20 mppcf

**4. First Aid Measures**

EYE CONTACT: Flush with plenty of water. Seek medical attention if irritation develops.

SKIN CONTACT: Wash with soap and plenty of warm water.

INHALATION: Remove to fresh air.

INGESTION: Immediate first aid is not likely to be required. Call poison control center.

**5. Fire Fighting Measures**

FLASH POINT: Not applicable

EXTINGUISHING MEDIA: Not applicable

HAZARDOUS COMBUSTION PRODUCTS: None expected

OTHER INFORMATION: Fumed silica can build up static electrical charges when subjected to friction. Take proper precautions when using near flammable liquids or gases and do not smoke in work area. Fumed silica is an inorganic dust and will not create nor support conditions that would result in a dust explosion or fire.

**6. Accidental Release Measures**

Clear non-emergency personnel from the area. Collect spilled material, preferably by vacuum. If material becomes airborne during cleanup, personnel wear eye and respiratory protection.

**7. Handling and Storage**

HANDLING: Do not smoke in work area. Wash hands after handling. See Section 8.

STORAGE: Store in a dry area away from volatile chemicals.

**8. Exposure Controls/Personal Protection**

ENGINEERING CONTROLS: Provide general and/or local exhaust to maintain airborne concentrations below exposure limits (see Section 1 for exposure limits).

PERSONAL PROTECTIVE EQUIPMENT: Recommend safety glasses or goggles and protective gloves (e.g., PVC or nitrile rubber).

RESPIRATORY PROTECTION: Use a NIOSH-approved dust respirator if airborne concentrations exceed exposure limits.

**9. Physical and Chemical Properties**

APPEARANCE: White powder

VAPOR PRESS.: Negligible

ODOR: None

SPECIFIC GRAVITY: 2.2 g/cm<sup>3</sup> @ 25 °C

SOLUBILITY IN WATER: Insoluble

BOILING POINT: 2230 °C

pH: NA

**10. Stability and Reactivity**

CONDITIONS TO AVOID: None

INCOMPATIBILITY WITH OTHER MATERIALS: None

HAZARDOUS DECOMPOSITION PRODUCTS: None

**11. Regulatory and Other Information**

COMMUNITY RIGHT-TO-KNOW: This product does not contain any compounds above the *de minimis* reporting levels subject to SARA Section 313 reporting requirements.

DISPOSAL: Upon disposal, this material is not a RCRA hazardous wastes (per 40 CFR 261). Dispose of in accordance with state and local regulations.

TRANSPORT: Not a hazardous material for shipping in U.S., per 49 CFR Part 171.

EMERGENCY SHIPPING INFORMATION: Call CHEMTREC, 800/424-9300.

HMIS RATING: Health-1, Flammability-0, Reactivity-0

**Revision Indicator:** Format changes.

**DISCLAIMER:** The information contained herein is considered accurate; however, Polytek makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.



# Material Safety Data Sheet

## The Dow Chemical Company

**Product Name:** GREAT STUFF PRO™ Gaps & Cracks 24oz  
STRAW HC Foam Sealant CDN

**Issue Date:** 12/10/2012

**Print Date:** 22 Jan 2013

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. Product and Company Identification

### Product Name

GREAT STUFF PRO™ Gaps & Cracks 24oz STRAW HC Foam Sealant CDN

### COMPANY IDENTIFICATION

The Dow Chemical Company  
2030 Willard H. Dow Center  
Midland, MI 48674  
United States

Customer Information Number:

800-258-2436

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:**

989-636-4400

**Local Emergency Contact:**

989-636-4400

## 2. Hazards Identification

### Emergency Overview

**Color:** Orange

**Physical State:** Foam

**Odor:** Odorless

**Hazards of product:**

DANGER! Flammable gas - May cause flash fire. May cause allergic skin reaction. May cause allergic respiratory reaction. May cause eye irritation. May cause skin irritation. Vapor reduces oxygen available for breathing. May cause anesthetic effects. May cause respiratory tract irritation. Vapors may travel a long distance; ignition and/or flash back may occur. Evacuate area. Keep upwind of spill. Stay out of low areas. Aerosol cans exposed to fire can rupture becoming flaming projectiles. Elevated temperatures can cause hazardous polymerization. Toxic fumes may be released in fire situations. Contents under pressure. Avoid temperatures above 49°C (120.2°F)

### OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Potential Health Effects

**Eye Contact:** May cause eye irritation. May cause slight temporary corneal injury.

**Skin Contact:** Prolonged contact may cause moderate skin irritation with local redness. Material may stick to skin causing irritation upon removal. May stain skin.

**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

**Skin 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.

**Inhalation:** 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.

**Respiratory Sensitization:** May cause allergic respiratory response. 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.

**Ingestion:** Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Observations in animals include: Gastrointestinal irritation.

**Aspiration hazard:** Based on physical properties, not likely to be an aspiration hazard.

**Effects of Repeated Exposure:** Tissue injury 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.

**Cancer Information:** 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.

**Birth Defects/Developmental Effects:** 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.

## 3. Composition Information

Component	CAS #	Amount
Isocyanic acid, polymethylenepolyphenylene ester, polymer with .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-hydroxypoly	57029-46-6	>= 30.0 - <= 60.0 %
Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer	53862-89-8	>= 5.0 - <= 10.0 %
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9	>= 10.0 - <= 30.0 %
Paraffin waxes and Hydrocarbon waxes, chlorinated	63449-39-8	>= 5.0 - <= 10.0 %
Isobutane	75-28-5	>= 3.0 - <= 7.0 %
Propane	74-98-6	>= 1.0 - <= 5.0 %
Methyl ether	115-10-6	>= 1.0 - <= 5.0 %
4,4'-Methylenediphenyl diisocyanate	101-68-8	>= 7.0 - <= 13.0 %
N,N'-Dimorpholinodiethylether	6425-39-4	>= 0.5 - <= 5.0 %

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.

## 4. First-aid measures

## 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), no additional symptoms and effects are anticipated.

## Indication of immediate medical attention and special treatment needed

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.

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.

## 5. Fire Fighting Measures

### 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.

**Extinguishing Media to Avoid:** 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 flash back 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.

## **6. Accidental Release Measures**

**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. Confined space entry procedures must be followed before entering the area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. 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. 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**

### **Handling**

**General Handling:** Keep away from heat, sparks and flame. No smoking, open flames or sources of ignition in handling and storage area. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid breathing vapor. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. Keep out of reach of children. 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. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

### 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.

**Shelf life: Use within**      **Do not store above:**  
12 Months                      49 °C

## 8. Exposure Controls / Personal Protection

### Exposure Limits

Component	List	Type	Value
4,4' -Methylenediphenyl diisocyanate	ACGIH	TWA	0.005 ppm
	OSHA Table Z-1	Ceiling	0.2 mg/m3 0.02 ppm
Methyl ether	AIHA WEEL	TWA	1,880 mg/m3 1,000 ppm
Isobutane	ACGIH	TWA	1,000 ppm
Propane	OSHA Table Z-1	PEL	1,800 mg/m3 1,000 ppm
	ACGIH	TWA	1,000 ppm

### Personal Protection

**Eye/Face Protection:** Use safety glasses (with side shields).

**Skin 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.

**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.

**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.

**Ingestion:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

### Engineering Controls

**Ventilation:** 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.

## 9. Physical and Chemical Properties

### Appearance

Physical State	Foam
Color	Orange
Odor	Odorless
Odor Threshold	No test data available
pH	Not applicable
Melting Point	No test data available
Freezing Point	No test data available
Boiling Point (760 mmHg)	Not applicable.
Flash Point - Closed Cup	-104 °C (-155 °F) <i>Estimated.</i>
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Flammable gas.
Flammable Limits In Air	<b>Lower:</b> No test data available <b>Upper:</b> No test data available
Vapor Pressure	1,100 kPa @ 55 °C <i>Supplier</i>
Vapor Density (air = 1)	No test data available
Specific Gravity (H2O = 1)	1.06 <i>Calculated</i>
Solubility in water (by weight)	Insoluble
Partition coefficient, n-octanol/water (log Pow)	Reacts with water.
Autoignition Temperature	No test data available
Decomposition Temperature	No test data available
Kinematic Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	No

## 10. Stability and Reactivity

### Reactivity

No dangerous reaction known under conditions of normal use.

### Chemical stability

Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

### Possibility of hazardous reactions

Can occur. Elevated temperatures can cause hazardous polymerization.

**Conditions to Avoid:** Avoid temperatures above 116 °C (241 °F). 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.

## 11. Toxicological Information

### Acute Toxicity

#### Ingestion

As product: Single dose oral LD50 has not been determined.

Estimated. LD50, rat > 2,000 mg/kg

#### Dermal

As product: The dermal LD50 has not been determined.

Estimated. LD50, rabbit > 2,000 mg/kg

#### Inhalation

As product: The LC50 has not been determined.

### Eye damage/eye irritation

May cause eye irritation. May cause slight temporary corneal injury.

### 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.

### Sensitization

#### Skin

Skin contact may cause an allergic skin reaction. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

#### Respiratory

May cause allergic respiratory response. 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.

### Repeated Dose Toxicity

Tissue injury 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.

### Chronic Toxicity and 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.

### Developmental Toxicity

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

No relevant data found.

### Genetic Toxicology

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.

## 12. Ecological Information

### Toxicity

Data for Component: Isocyanic acid, polymethylenepolyphenylene ester, polymer with alpha, alpha, alpha, -1,2,3-propanetriyltris[omega-hydroxypoly

|| Not expected to be acutely toxic to aquatic organisms.

Data for Component: Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

|| Not expected to be acutely toxic to aquatic organisms.

Data for Component: **Diphenylmethane Diisocyanate, isomers and homologues**

|| 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).

**Fish Acute & Prolonged Toxicity**

|| Based on information for a similar material: LC50, Danio rerio (zebra fish), static test, 96 h: > 1,000 mg/l

**Aquatic Invertebrate Acute Toxicity**

|| Based on information for a similar material: EC50, Daphnia magna (Water flea), static test, 24 h: > 1,000 mg/l

**Aquatic Plant Toxicity**

|| Based on information for a similar material: NOEC, Desmodesmus subspicatus (green algae), static test, Growth rate inhibition, 72 h: 1,640 mg/l

**Toxicity to Micro-organisms**

|| Based on information for a similar material: EC50; activated sludge, static test, 3 h: > 100 mg/l

**Toxicity to Soil Dwelling Organisms**

|| EC50, Eisenia fetida (earthworms), 14 d: > 1,000 mg/kg

Data for Component: **Paraffin waxes and Hydrocarbon waxes, chlorinated**

|| Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).

**Fish Acute & Prolonged Toxicity**

|| LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 h: > 100 mg/l

**Aquatic Invertebrate Acute Toxicity**

|| EC50, Daphnia magna (Water flea), static test, 48 h, immobilization: 0.037 mg/l

Data for Component: **Isobutane**

|| No relevant data found.

Data for Component: **Propane**

|| No relevant data found.

Data for Component: **Methyl ether**

|| 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).

**Fish Acute & Prolonged Toxicity**

|| LC50, Poecilia reticulata (guppy), semi-static test, 96 h: > 4,000 mg/l

**Aquatic Invertebrate Acute Toxicity**

|| LC50, Daphnia magna (Water flea), 48 h, immobilization: > 4,000 mg/l

Data for Component: **4,4' -Methylenediphenyl diisocyanate**

|| 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).

**Fish Acute & Prolonged Toxicity**

|| Based on information for a similar material: LC50, Danio rerio (zebra fish), static test, 96 h: > 1,000 mg/l

**Aquatic Invertebrate Acute Toxicity**

|| Based on information for a similar material: EC50, Daphnia magna (Water flea), static test, 24 h: > 1,000 mg/l

**Aquatic Plant Toxicity**

|| Based on information for a similar material: NOEC, Desmodesmus subspicatus (green algae), static test, Growth rate inhibition, 72 h: 1,640 mg/l

**Toxicity to Micro-organisms**

Based on information for a similar material: EC50; activated sludge, static test, 3 h: > 100 mg/l

**Toxicity to Soil Dwelling Organisms**

EC50, Eisenia fetida (earthworms), 14 d: > 1,000 mg/kg

**Data for Component: N,N'-Dimorpholinodiethylether**

Material is practically non-toxic to fish on an acute basis (LC50 > 100 mg/L). May increase pH of aquatic systems to > pH 10 which may be toxic to aquatic organisms.

**Fish Acute & Prolonged Toxicity**

LC50, Danio rerio (zebra fish), static test, 96 h: > 2,150 mg/l

**Persistence and Degradability**

**Data for Component: Isocyanic acid, polymethylenepolyphenylene ester, polymer with .alpha.,.alpha.,.alpha.-1,2,3-propanetriyltris[.omega.-hydroxypoly**

Expected to degrade only slowly in the environment.

**Data for Component: Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

Expected to degrade only slowly in the environment.

**Data for Component: Diphenylmethane Diisocyanate, isomers and homologues**

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.

**OECD Biodegradation Tests:** Based on information for a similar material:

Biodegradation	Exposure Time	Method	10 Day Window
0 %	28 d	OECD 302C Test	Not applicable

**Data for Component: Paraffin waxes and Hydrocarbon waxes, chlorinated**

Expected to degrade only slowly in the environment.

**Theoretical Oxygen Demand:** 2.89 mg/mg

**Data for Component: Isobutane**

Biodegradation may occur under aerobic conditions (in the presence of oxygen).

**Indirect Photodegradation with OH Radicals**

Rate Constant	Atmospheric Half-life	Method
2.44E-12 cm <sup>3</sup> /s	4.4 d	Estimated.

**Theoretical Oxygen Demand:** 3.58 mg/mg

**Data for Component: Propane**

No relevant data found.

**Indirect Photodegradation with OH Radicals**

Rate Constant	Atmospheric Half-life	Method
1.27E-12 cm <sup>3</sup> /s	8.4 d	Estimated.

**Theoretical Oxygen Demand:** 3.64 mg/mg

**Data for Component: Methyl ether**

Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

**OECD Biodegradation Tests:**

Biodegradation	Exposure Time	Method	10 Day Window
5 %	28 d	OECD 301A Test	fail

**Indirect Photodegradation with OH Radicals**

Rate Constant	Atmospheric Half-life	Method
1.66E-12 cm <sup>3</sup> /s	6.4 d	Estimated.

**Theoretical Oxygen Demand:** 2.08 mg/mg

Data for Component: **4,4'-Methylenediphenyl diisocyanate**

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.

**OECD Biodegradation Tests:** Based on information for a similar material:

Biodegradation	Exposure Time	Method	10 Day Window
0 %	28 d	OECD 302C Test	Not applicable

Data for Component: **N,N'-Dimorpholinodiethylether**

Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

**OECD Biodegradation Tests:**

Biodegradation	Exposure Time	Method	10 Day Window
0 - 10 %	28 d	OECD 301A Test	fail

**Indirect Photodegradation with OH Radicals**

Rate Constant	Atmospheric Half-life	Method
3.5646E-10 cm <sup>3</sup> /s	0.03 d	Estimated.

**Theoretical Oxygen Demand:** 2.49 mg/mg

## Bioaccumulative potential

Data for Component: **Isocyanic acid, polymethylenepolyphenylene ester, polymer with alpha...alpha',alpha'-1,2,3-propanetriyltris[.omega.-hydroxypoly**

**Bioaccumulation:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Data for Component: **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.

Data for Component: **Diphenylmethane Diisocyanate, isomers and homologues**

**Bioaccumulation:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Data for Component: **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.

Data for Component: **Isobutane**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient, n-octanol/water (log Pow):** 2.76 Measured

Data for Component: **Propane**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient, n-octanol/water (log Pow):** 2.36 Measured

Data for Component: **Methyl ether**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient, n-octanol/water (log Pow):** 0.10 Measured

Data for Component: **4,4'-Methylenediphenyl diisocyanate**

**Bioaccumulation:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Data for Component: **N,N'-Dimorpholinodiethylether**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient, n-octanol/water (log Pow):** -1.31 Estimated.

## Mobility in soil

Data for Component: **Isocyanic acid, polymethylenepolyphenylene ester, polymer with alpha...alpha',alpha'-1,2,3-propanetriyltris[.omega.-hydroxypoly**

**Mobility in soil:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Data for Component: **Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Mobility in soil:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Data for Component: **Diphenylmethane Diisocyanate, isomers and homologues**

**Mobility in soil:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Data for Component: **Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Mobility in soil:** 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, soil organic carbon/water (Koc):** > 5,000 Estimated.

**Henry's Law Constant (H):** < 1.0E-07 atm\*m3/mole; 25 °C Estimated.

Data for Component: **Isobutane**

**Mobility in soil:** Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient, soil organic carbon/water (Koc):** 35 Estimated.

**Henry's Law Constant (H):** 1.19E+00 atm\*m3/mole; 25 °C Measured

**Distribution in Environment: Mackay Level 1 Fugacity Model:**

Air	Water.	Biota	Soil	Sediment
100 %	0 %	0 %	0 %	0 %

Data for Component: **Propane**

**Mobility in soil:** Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient, soil organic carbon/water (Koc):** 24 - 460 Estimated.

**Henry's Law Constant (H):** 7.07E-01 atm\*m3/mole; 25 °C Measured

**Distribution in Environment: Mackay Level 1 Fugacity Model:**

Air	Water.	Biota	Soil	Sediment
100 %	0 %	0 %	0 %	0 %

Data for Component: **Methyl ether**

**Mobility in soil:** Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient, soil organic carbon/water (Koc):** 1.29 - 14 Estimated.

**Henry's Law Constant (H):** 9.78E-04 atm\*m3/mole; 25 °C Measured

Data for Component: **4,4' -Methylenediphenyl diisocyanate**

**Mobility in soil:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Data for Component: **N,N'-Dimorpholinodiethylether**

**Mobility in soil:** Potential for mobility in soil is very high (Koc between 0 and 50)., 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.

**Partition coefficient, soil organic carbon/water (Koc):** 10 Estimated.

**Henry's Law Constant (H):** 3.79E-18 atm\*m3/mole; 25 °C Estimated.

## 13. Disposal Considerations

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 Non-Bulk

CONSUMER COMMODITY RECLASSIFIED AS ORM-D MATERIAL

### DOT Bulk

NOT AVAILABLE IN BULK CONTAINERS

### IMDG

**Proper Shipping Name:** AEROSOLS

**Hazard Class:** 2.1 **ID Number:** UN1950

**EMS Number:** F-D,S-U

**Marine pollutant.:** Yes

LIMITED QUANTITY

### ICAO/IATA

**Proper Shipping Name:** AEROSOLS, FLAMMABLE

**Hazard Class:** 2.1 **ID Number:** UN1950 **Cargo Packing Instruction:** 203

**Passenger Packing Instruction:** 203

LIMITED QUANTITY

### Additional Information

MARINE POLLUTANT

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. 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.*

## 15. Regulatory Information

### 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

**Immediate (Acute) Health Hazard** Yes

**Delayed (Chronic) Health Hazard** Yes

**Fire Hazard** Yes

**Reactive Hazard** No

**Sudden Release of Pressure Hazard** No

### 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.

Component	CAS #	Amount
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9	>= 10.0 - <= 30.0 %
4,4' -Methylenediphenyl diisocyanate	101-68-8	>= 7.0 - <= 13.0 %

**Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:**

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Component	CAS #	Amount
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9	>= 10.0 - <= 30.0 %
4,4' -Methylenediphenyl diisocyanate	101-68-8	>= 7.0 - <= 13.0 %
Methyl ether	115-10-6	>= 1.0 - <= 5.0 %
Propane	74-98-6	>= 1.0 - <= 5.0 %
Isobutane	75-28-5	>= 3.0 - <= 7.0 %

**Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103**

This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed in 40 CFR 302.4.

Component	CAS #	Amount
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9	>= 10.0 - <= 30.0 %
4,4' -Methylenediphenyl diisocyanate	101-68-8	>= 7.0 - <= 13.0 %
Methyl ether	115-10-6	>= 1.0 - <= 5.0 %
Propane	74-98-6	>= 1.0 - <= 5.0 %
Isobutane	75-28-5	>= 3.0 - <= 7.0 %

**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.

**US. Toxic Substances Control Act**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

**CEPA - Domestic Substances List (DSL)**

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

## 16. Other Information

**Recommended Uses and Restrictions**

**Identified uses**

|| Polyurethane foam.

**Revision**

Identification Number: 1041500 / 0000 / Issue Date 12/10/2012 / Version: 2.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

N/A	Not available
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W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

*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.*



## Material Safety Data Sheet

### Section 1. Chemical Product and Company Identification

Product Name/Trade Name	Lemon Ammonia
	Ref#40000028 / 40000295
Manufacturer:	KIK CUSTOM PRODUCTS
	2921 Corder Street.
	Houston, Texas 77054
Contact Number:	Tel: 905-660-0444
24 Hour Emergency Contact:	Tel: 1-800-255-3924
Prepared By:	KIK CUSTOM PRODUCTS Laboratory
Date Last Revised:	October 31, 2007
Replaces Date:	June 27, 2005

### Section 2. Hazardous Ingredients

Name	%	CAS#	LD50/LC50
Aqua Ammonia	2 -3	1336-21-6	350 mg/kg (oral rat)/ 2115ppm/4hr mouse.

### Section 3. Physical Data

State	Liquid	pH	11.5 – 12.5
Appearance	Clear yellow	% Volatile	99
Odour	Ammonia/lemon	Boiling Point	Approx. 100C.
Specific Gravity	0.985 – 0.995	Vapour Pressure	N Av.
Solubility	100% in water		

### Section 4. Fire & Explosion

Flammable:	YES	NO	X
Conditions:	Heat, source of ignition		
Means of Extinction:	Water, Carbon Dioxide, Dry Chemical or Foam		
Special Procedures:	Fire Fighters should wear self-contained breathing apparatus.		
Flash Point: & Method:	> 95°C TCC		
Hazardous Combustion Products:	Oxides of Carbon		

### Section 5. Reactivity Data

Chemical Stability:	YES	NO	X
Conditions:	Intense heat or exposure to sunlight		
Incompatibility:	YES	X	NO
What Substances:	sodium hypochlorite		
Reactivity / Conditions:	Not Applicable		
Hazardous Decomposition Products:	N Av.		



## LEMON AMMONIA

### *Section 6. Toxicological Properties*

#### **Route of Entry**

Skin Contact	X	Skin Absorption	Eye Contact	X
Inhalation Acute		Inhalation Chronic	Ingestion	X

**Effects of Acute Exposure:** Contact will burn the eyes. Harmful if swallowed, can cause gastro-intestinal irritation, nausea, vomiting and diarrhea.

**Effects of chronic exposure:** Prolonged and repeated exposure with skin may cause drying, irritation, and dermatitis.

**Carcinogenicity Reproductive Effects Mutagenicity Teratogenicity:** Not known.

### *Section 7. Preventative Measures*

#### **Protective Equipment**

Gloves: Recommended Eyes: Not normally required

Respiratory: Not normally required. Footwear: Not Applicable

**LEAK AND SPILL PROTECTION:** FOR SMALL SPILLS WIPE UP OR MOP UP. For large spills control spill with absorbent; transfer to non-leaking containers. Rinse area thoroughly.

**WASTE DISPOSAL:** Reclaim or dispose in accordance with local regulations.

**STORAGE REQUIREMENTS:** Store in a cool, dry and well-ventilated area.

### *Section 8. First Aid Measures*

**Skin:** Wash with soap and water for 15 minutes.

**Eyes:** Flush eyes with cool running water holding eyelids apart to ensure thorough rinsing for 15 minutes. Remove contact lenses.

**Inhalation:** Move to fresh air and restore breathing, if required.

**Ingestion:** DO NOT INDUCE VOMITING! Drink large amounts of water. Do not give anything by mouth to a convulsing or unconscious person. See a doctor immediately.

**General Advice:** If irritation occur, see a doctor immediately.

### *Section 9. Regulatory Information*

#### **WHMIS:**

Health: 1

Flammability: 0

Reactivity: 2

**DOT:** Not Regulated

As the handling and use of products under user's conditions are beyond our control, no warranty, expressed or implied, is made concerning this product. The information contained herein is offered only as a guide to the handling of this specific material and is not intended to be all-inclusive in the manner and conditions of use and handling. The user assumes all risks of use or handling, whether or not in accordance with any directions or suggestions of the manufacturer. Manufacturer shall not be liable to purchaser or any other person for loss or damages directly or indirectly arising from the use of our product.



## HELMAR AUSTRALIA PTY. LTD.

A.C.N 003 425 796 A.B.N. 28 003 425 796

PO Box 369 Riverstone N.S.W. 2765 Australia

54-56 Brisbane Road, Riverstone NSW 2765

International (61+2) Ph.(02) 9627 - 4666 Fax.(02) 9627 - 4424

WEBSITE : [www.helmar.com.au](http://www.helmar.com.au) EMAIL : [admin@helmar.com.au](mailto:admin@helmar.com.au)

# MATERIAL SAFETY DATA SHEET

Date of Issue: April 2006

## STATEMENT OF HAZARDOUS NATURE

Not classified as Hazardous according to criteria of Worksafe Australia.

## COMPANY DETAILS

Company : Helmar Australia Pty Ltd

ACN : 003 425 796

Address : 54-56 Brisbane Road, Riverstone, NSW, 2765, Australia

Telephone Number : (02) 9627-4666

Fax Number : (02) 9627-4424

## PRODUCT IDENTIFICATION

UN No. : N/A D.G.CLASS : N/A CAS No. : N/A HAZCHEM : N/A Sub.Risk : N/A  
POISONS : N/A G.T.EPG : N/A Spec.EPG : N/A PACK.GRP.: N/A

PRODUCT NAME: Helmar Foam Glue

PRODUCT CODE: [747311 00032 8 125ml] [747311 00033 5 250ml]

PRODUCT USE: Helmar Foam Glue is a fast grabbing premium adhesive for bonding many types of embellishments to all types of foam.

## PHYSICAL DATA:

Appearance: White viscous liquid

Vapour Pressure: As per water

Boiling Point: 100 C (Water)

Specific gravity: 1.05-1.07 @25 C

Flash Point: Not Applicable

Flamm. Limit LEL: Not Applicable

Flamm. Limit UEL: Not Applicable

PH Value: 4.0 - 5.0

## INGREDIENTS:

Chemical Entity	CAS	Proportion
Modified EVA polymer	Proprietary	50 - 80
Vinyl acetate (Residual Monomer)	108-05-4	< 1%

## HEALTH HAZARD INFORMATION:

### Health Effects

<b>Acute - Ingestion</b>	None known but swallowing may result in nausea.
<b>Acute - Eye</b>	None known. May cause slight irritation and soreness.
<b>Acute - Skin</b>	No known health hazard.
<b>Acute - Inhalation</b>	Not expected to present a vapour inhalation hazard.
<b>Chronic</b>	Available data indicates low toxicity. Long term exposure to this product type indicates no danger to health when handled in accordance with good industrial practices.

### First Aid

<b>Ingestion</b>	If swallowed, rinse mouth immediately with water and give water to drink. Do not induce vomiting. Seek medical assistance.
<b>Eye</b>	Irrigate immediately with copious quantities of water for a least 15 minutes holding eyelids open. See immediate medical assistance.
<b>Skin</b>	Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and launder before re-use. If irritation occurs, seek medical assistance.
<b>Inhalation</b>	Remove victim from exposure and allow to recover. Apply Artificial respiration or oxygen if required. If discomfort continues seek medical assistance.
<b>First Aid Facilities</b>	Safety shower and eye wash station.

### Advise to Doctor

Advice to Doctor	Treat symptomatically
------------------	-----------------------

### Other Health Hazard Information

### Precautions for use

**Exposure Limites**          None assigned by Worksafe Australia, However

NAME	STEL	TWA
Vinyl acetate residual	70 mg/m <sup>3</sup>	35 mg/m <sup>3</sup>
Monomer	20 ppm	10 ppm

Exposure standard (**TWA**) refers to the time weighted average airborne concentration over an eight-hour day, for a five day working week, over an entire working life. According to current knowledge, this concentration level should neither impair the health of, nor cause undue discomfort to, nearly all workers. Short term exposure limit (**STEL**) refers to the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour day. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contaminants should be kept to as low as is workable and should not be used as fine dividing line between safe and dangerous concentrations of chemicals.

## Engineering Controls

General ventilation is usually adequate. If product is to be used in a confined space local extraction is recommended. If product is to be sprayed, vapours or mists may be generated. In this circumstance respiratory protection is recommended.

## Personal Protection

<b>Respirator Type</b>	Organic Vapour respirator is recommended if at risk of exposure to Mists or vapours.
<b>Eye protection</b>	Safety glasses with side shield, chemical goggles or face mask.
<b>Glove type</b>	PVC Coated.
<b>Clothing</b>	Standard work overalls covering arms and legs.
<b>Footwear</b>	Chemical resistant safety shoes or boots.
<b>Work/hygiene Practice</b>	Always wash hands before smoking, eating, drinking or using Toilet.

## Flammability

<b>Fire Hazard</b>	Not Flammable under normal conditions of use.
--------------------	---

## SAFE HANDLING INFORMATION

### Storage and Transport

<b>Storage Precautions</b>	Store in a well ventilated area away from direct sunlight and Frost. Store away from foodstuffs and oxidising agents. Keep Containers closed when not in use.
<b>Transport</b>	Not classified as a dangerous good for the purposes of Transporation.

## Spills and Disposal

<b>Spills and Leaks</b>	Contain. Collect excess into empty drums, then use absorbent material such as sand, soil or remiculite on remainder of spilt material. Collect, seal in containers and identify for disposal. Area may be hosed down to remove any remaining material but, where possible water should be collected for disposal.
<b>Disposal</b>	Waste product must not be discharged directly into drains or water ways with out treatment. Recycle the material if possible. The polymer content may be separated by coagulation and then disposed of to approved land fill or incineration. Waste water containing polymer may be treated by coagulation/settling, flotation or ultrafiltration. In all cases, disposal must be in accordance with regulations.

## FIRE/EXPLOSION HAZARD

<b>Fire/Explos. Hazard</b>	Not flammable under normal conditions of use.
<b>Fire Fighting Procedures</b>	Not flammable under normal conditions of use.
<b>Extinguishing Media</b>	Not flammable under normal conditions of use.
<b>Hazardous Reaction</b>	Hazardous reactions will not occur.



**CONTACT POINT:**

Helmar Australia Pty Ltd on (02) 9627-4666 during office hours.

Out of office hours contact: Poison Information Centre:131126

**DISCLAIMER**

Whilst the information contained in this document is based on data which, to the best of our knowledge, was accurate and reliable at the time of preparation, no responsibility can be accepted by us for errors and omissions. The provision of this information should not be construed as a recommendation to use any of our products in violation of any patent rights or in breach of any patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their particular purposes and specific circumstances. Since the information contained in this document may be applied under conditions beyond our control, no responsibility can be accepted by us for any loss or damage caused by any person acting or refraining from action as a result of this information.

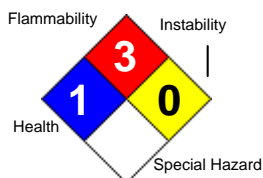
# MATERIAL SAFETY DATA SHEET

## Klean-Strip Acetone

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HEALTH		1
FLAMMABILITY	3	
PHYSICAL	0	
PPE		



Printed: 09/22/2011  
Revision: 04/14/2009  
Supercedes Revision: 11/13/2008

### 1. Product and Company Identification

**Product Code:** 1640.1  
**Product Name:** Klean-Strip Acetone  
**Reference #:** 1640.1  
**Manufacturer Information**  
**Company Name:** W. M. Barr  
2105 Channel Avenue  
Memphis, TN 38113  
**Phone Number:** (901)775-0100  
**Emergency Contact:** 3E 24 Hour Emergency Contact (800)451-8346  
**Information:** W.M. Barr Customer Service (800)398-3892  
**Web site address:** www.wmbarr.com  
**Preparer Name:** W.M. Barr EHS Department (901)775-0100

#### Synonyms

CAC18, DAC18, GAC18, GAC718, QAC18, QAC18L, QAC718, QAC18L

### 2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	OSHA PEL	ACGIH TWA	Other Limits
1. Acetone {2-Propanone}	67-64-1	100.0 %	1000 ppm	500 ppm	No data.
Hazardous Components (Chemical Name)	CAS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. Acetone {2-Propanone}	67-64-1	No data.	No data.	750 ppm	No data.

### 3. Hazards Identification

#### Emergency Overview

Danger! Extremely Flammable. Keep away from heat, sparks, flame and all other sources of ignition. Vapors may cause flash fire or ignite explosively. Vapors may travel long distances to other areas and rooms away from the work site. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and all other sources of ignition anywhere in the structure, dwelling, or building during use and until all vapors are gone from the work site. Keep away from electrical outlets and switches. Beware of static electricity that may be generated by synthetic clothing and other sources.

#### Potential Health Effects (Acute and Chronic)

Inhalation Acute Exposure Effects:

Vapor harmful. May cause dizziness, headache, watering of eyes, irritation of respiratory tract, drowsiness, nausea, and numbness in fingers, arms and legs.

Skin Contact Acute Exposure Effects:

May cause drying of skin, and numbness in fingers and arms. Liquid is absorbed readily.

Eye Contact Acute Exposure Effects:

This material is an eye irritant.

Ingestion Acute Exposure Effects:

Harmful if swallowed. May cause dizziness, headache, nausea, and irritation of the mouth, throat, and stomach.

# MATERIAL SAFETY DATA SHEET

## Klean-Strip Acetone

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### Chronic Exposure Effects:

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. May cause weakness, fatigue, skin irritation, and numbness in hands and feet.

### Signs and Symptoms Of Exposure

#### Primary Routes of Exposure:

Inhalation, ingestion, and dermal.

### Medical Conditions Generally Aggravated By Exposure

Skin, eye, lung (asthma-like conditions)

### OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

## 4. First Aid Measures

### Emergency and First Aid Procedures

#### Inhalation:

If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be reached.

#### Skin Contact:

Wash with soap and water.

#### Eye Contact:

Flush with large quantities of water for at least 15 minutes and seek immediate medical attention.

#### Ingestion:

Call your poison control center, hospital emergency room, or physician immediately for instructions.

### Note to Physician

Call your local poison control center for further instructions.

## 5. Fire Fighting Measures

### Flammability Classification:

Class IB

### Flash Pt:

-4.0 F Method Used: TAG Closed Cup

### Explosive Limits:

LEL: 2.5 % at 77 F UEL: 13.0 % at 77 F

### Autoignition Pt:

870 F

### Fire Fighting Instructions

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

### Flammable Properties and Hazards

Extremely Flammable!

### Hazardous Combustion Products

carbon monoxide, carbon dioxide

### Extinguishing Media

Use carbon dioxide, dry powder, or foam.

### Unsuitable Extinguishing Media

No data available.

## 6. Accidental Release Measures

### Steps To Be Taken In Case Material Is Released Or Spilled

#### Clean Up:

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area. For small spills, take up liquid with sand, earth, or other noncombustible absorbent material and place in a container for disposal. For large spills, dike far ahead of spill and use sand, earth, or other noncombustible absorbent material and then place material in a container for disposal.

#### Waste Disposal:

Dispose in accordance with applicable local, state, and federal regulations.

## 7. Handling and Storage

### Precautions To Be Taken in Handling

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse the container.

### Precautions To Be Taken in Storing

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.

## 8. Exposure Controls/Personal Protection

### Respiratory Equipment (Specify Type)

For OSHA controlled work place and other regular users. Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors. A dust mask does not provide protection against vapors.

### Eye Protection

Safety glasses, chemical goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.

### Protective Gloves

Wear chemical resistant gloves suited for use with acetone. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with product.

### Other Protective Clothing

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

### Engineering Controls (Ventilation etc.)

Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or your experience slight dizziness, headache, nausea, or eye-watering - STOP - ventilation is inadequate. Leave area immediately.

### Work/Hygienic/Maintenance Practices

A source of clean water should be available in the work area for flushing eyes and skin.

Do not eat, drink, or smoke in the work area.

Wash hands thoroughly after use.

Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use.

Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

### 9. Physical and Chemical Properties

**Physical States:** ☐ Gas ☒ Liquid ☐ Solid  
**Melting Point:** No data.  
**Boiling Point:** > 130 F  
**Autoignition Pt:** 870 F  
**Flash Pt:** -4.0 F Method Used: TAG Closed Cup  
**Explosive Limits:** LEL: 2.5 % at 77 F UEL: 13.0 % at 77 F  
**Specific Gravity (Water = 1):** 0.789  
**Density:** 6.572 LB/GA at 77 F  
**Vapor Pressure (vs. Air or mm Hg):** 213 MM HG at 77 F  
**Vapor Density (vs. Air = 1):** No data.  
**Evaporation Rate:** No data.  
**Solubility in Water:** No data.  
**Percent Volatile:** 100 % by weight.

#### Appearance and Odor

Clear colorless liquid with a characteristic ketone odor.

### 10. Stability and Reactivity

**Stability:** Unstable ☐ Stable ☒

#### Conditions To Avoid - Instability

No data available.

#### Incompatibility - Materials To Avoid

May form explosive mixtures with chromic anhydride, chromyl alcohol, hexachloromelamine, hydrogen peroxide, permonosulfuric acid, potassium tertbutoxide, and thioglycol. Strong oxidizers.

#### Hazardous Decomposition Or Byproducts

Decomposition may produce carbon monoxide, carbon dioxide, and other asphyxiants.

**Hazardous Polymerization:** Will occur ☐ Will not occur ☒

#### Conditions To Avoid - Hazardous Polymerization

No data available.

### 11. Toxicological Information

LD50 Rat oral 10.7 mL/kg (=8450 mg/kg bw); acetone given by gastric intubation to groups of five non-fasted Carworth-Wistar female rats

LD50 Rat oral 9800 mg/kg/ bw

LD50 Rat oral 5800 mg/kg bw

LD50 Mouse oral 3000 mg/kg bw

LD50 Rabbit oral 5340 mg/kg bw

LC50 Rat inhalation exposure 76 mg/L/4 hr

LC50 Rat inhalation 50.1 mg/L/8 hr

LD50 Rabbit dermal 20 mg/kg bw

LD50 Rabbit dermal 20,000 mg/kg bw

LD50 Mouse ip 1,297 mg/kg bw

LD50 Rat iv 5500 mg/kg bw

LD50 Mouse oral 5.2 g/kg

#### Chronic Toxicological Effects

No data available.

# MATERIAL SAFETY DATA SHEET

## Klean-Strip Acetone

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**Hazardous Components (Chemical Name)****CAS #****NTP****IARC****ACGIH****OSHA**

1. Acetone {2-Propanone}

67-64-1

n.a.

n.a.

A4

n.a.

## 12. Ecological Information

No data available.

## 13. Disposal Considerations

**Waste Disposal Method**

Dispose in accordance with applicable local, state and federal regulations.

## 14. Transport Information

**LAND TRANSPORT (US DOT)****DOT Proper Shipping Name**

Acetone

**DOT Hazard Class:**

3

**DOT Hazard Label:**

FLAMMABLE LIQUID

**UN/NA Number:**

UN1090

**Packing Group:**

II

**Additional Transport Information**

The transportation information listed above is suitable for all modes of transportation. IMO/IMDG, ICAO/IATA, 49 CFR

For D.O.T. information, contact W.M. Barr Technical Services at 1-800-398-3892.

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

## 15. Regulatory Information

**US EPA SARA Title III****Hazardous Components (Chemical Name)****CAS #****Sec.302 (EHS)****Sec.304 RQ****Sec.313 (TRI)****Sec.110**

1. Acetone {2-Propanone}

67-64-1

No

Yes 5000 LB

No

Yes

**US EPA CAA, CWA, TSCA****Hazardous Components (Chemical Name)****CAS #****EPA CAA****EPA CWA NPDES****EPA TSCA****CA PROP 65**

1. Acetone {2-Propanone}

67-64-1

HAP, ODC ()

No

Inventory

No

**EPA Hazard Categories:**

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

☒ Yes ☐ No Acute (immediate) Health Hazard

☐ Yes ☒ No Chronic (delayed) Health Hazard

☒ Yes ☐ No Fire Hazard

☐ Yes ☒ No Sudden Release of Pressure Hazard

☐ Yes ☒ No Reactive Hazard

## 16. Other Information

**Company Policy or Disclaimer**

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in

**MATERIAL SAFETY DATA SHEET**  
**Klean-Strip Acetone**

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accordance with applicable federal, state and local laws and regulations.

# SAFETY DATA SHEET

## Klean-Strip Boiled Linseed Oil

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Printed: 09/22/2014

Revision: 09/08/2014

Supersedes Revision: 04/13/2006

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Klean-Strip Boiled Linseed Oil

**Reference #:** 1660C

**Company Name:** W. M. Barr  
2105 Channel Avenue  
Memphis, TN 38113

**Phone Number:** (901)775-0100

**Web site address:** www.wmbarr.com

**Emergency Contact:** 3E 24 Hour Emergency Contact (800)451-8346

**Information:** W.M. Barr Customer Service (800)398-3892

**Intended Use:** Wood finish and natural protectant

**Synonyms:** GLO45, QLO45, CLO45

### 2. HAZARDS IDENTIFICATION

**Skin Corrosion/Irritation, Category 2**

**Serious Eye Damage/Eye Irritation, Category 2A**



**GHS Signal Word:** Warning

**GHS Hazard Phrases:** H315: Causes skin irritation.  
H319: Causes serious eye irritation.

**GHS Precaution Phrases:** P264: Wash hands thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P362+364: Take off contaminated clothing and wash it before reuse.

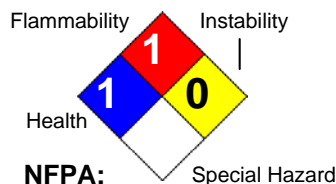
**GHS Response Phrases:** P302+352: IF ON SKIN: Wash with plenty of soap and water.  
P321: Specific treatment see label.  
P332+313: If skin irritation occurs, get medical advice/attention.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+313: If eye irritation persists, get medical advice/attention.

**GHS Storage and Disposal Phrases:** No phrases apply.

**Hazard Rating System:**

HEALTH		1
FLAMMABILITY		1
REACTIVITY		
PPE		C

**HMIS:**



**Potential Health Effects (Acute and Chronic):**

**INHALATION ACUTE EXPOSURE EFFECTS:**  
May cause irritation of respiratory tract, and cough.

**SKIN CONTACT ACUTE EXPOSURE EFFECTS:**  
None known.

**EYE CONTACT ACUTE EXPOSURE EFFECTS:**  
May cause irritation.

**INGESTION ACUTE EXPOSURE EFFECTS:**  
Inedible -- not to be taken internally. May cause nausea, vomiting, and diarrhea.



# SAFETY DATA SHEET

## Klean-Strip Boiled Linseed Oil

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### CHRONIC EXPOSURE EFFECTS:

None known.

**Medical Conditions Generally** None known.

**Aggravated By Exposure:**

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
68553-15-1	Linseed oil, cobalt manganese salt {Linseed oil, manganese and cobalt driers}	100.0 %

## 4. FIRST AID MEASURES

### Emergency and First Aid Procedures:

#### INHALATION:

If user experiences breathing difficulty, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

#### SKIN CONTACT:

wash with soap and water.

#### EYE CONTACT:

Flush eye with water for at least 15 minutes. Get immediate medical attention.

#### INGESTION:

Call your poison control center, hospital emergency room, or physician immediately for instructions.

### Signs and Symptoms Of Exposure:

See Potential Health Effects.

## 5. FIRE FIGHTING MEASURES

	IIIB
<b>Flash Pt:</b>	210.00 F
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Autoignition Pt:</b>	> 651.00 F
<b>Suitable Extinguishing Media:</b>	Use carbon dioxide, dry powder, or foam.
<b>Fire Fighting Instructions:</b>	Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.
<b>Flammable Properties and Hazards:</b>	<p>RISK OF FIRE FROM SPONTANEOUS COMBUSTION EXISTS WITH THIS PRODUCT.</p> <p>Oily rags, waste, and other oily materials can cause spontaneous combustion fires if not handled properly. Immediately after use, and before disposal or storage, you MUST (1) Spread out all oily materials outside to dry by flattening them out to their full size in an airy spot for 24 hours at temperatures above 40 degrees F, or (2) Wash them thoroughly with water and detergent and rinse. Repeat until you have removed all oil from all clothes, tools, rags, paper, clothing, mops, and any other materials contacted during use or as a result of an accidental spill. Make certain all wash and rinse water is disposed of properly.</p>

# SAFETY DATA SHEET

## Klean-Strip Boiled Linseed Oil

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### 6. ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken In Case Material Is Released Or Spilled:** Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area.

Small Spills: take up liquid with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.

Large Spills: dike far ahead of spill for later disposal.

### 7. HANDLING AND STORAGE

**Precautions To Be Taken in Handling:** Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

**Precautions To Be Taken in Storing:** Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
68553-15-1	Linseed oil, cobalt manganese salt {Linseed oil, manganese and cobalt driers}	No data.	No data.	No data.
<b>Respiratory Equipment (Specify Type):</b>	For occasional consumer use - Use with adequate ventilation to prevent a build-up of vapors in confined areas. Open windows or position fans to provide cross ventilation. If a mild to strong odor is noticeable, ventilation is not adequate.  For OSHA controlled workplace and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLVs.  For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirators. A dust mask does not provide protection against vapors.			
<b>Eye Protection:</b>	Safety glasses, chemical goggles, or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.			
<b>Protective Gloves:</b>	Wear impermeable gloves. Gloves contaminated with product should be discarded. Follow disposal procedures as described in Section 5 and Section 7.			
<b>Other Protective Clothing:</b>	Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.			
<b>Engineering Controls (Ventilation etc.):</b>	Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate, such as basements, bathrooms or small enclosed areas. Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- STOP -- ventilation is inadequate. Leave area immediately and move to fresh air.			
<b>Work/Hygienic/Maintenance</b>	A source of clean water should be available in the work area for flushing of eyes and			

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**Practices:** skin.

Clothing that becomes soiled with product should be removed as soon as possible and laundered separately. Follow procedures outlined in Section 7, Handling and Storage.

Wash hands thoroughly after use and before eating, drinking, or smoking.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical States:** [ ] Gas [ X ] Liquid [ ] Solid  
**Appearance and Odor:** Clear Amber  
**Melting Point:** No data.  
**Boiling Point:** No data.  
**Autoignition Pt:** > 651.00 F  
**Flash Pt:** 210.00 F  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Specific Gravity (Water = 1):** 0.93 at 77.0 F  
**Vapor Pressure (vs. Air or mm Hg):** No data.  
**Vapor Density (vs. Air = 1):** No data.  
**Evaporation Rate:** No data.  
**Solubility in Water:** No data.  
**Percent Volatile:** No data.

### 10. STABILITY AND REACTIVITY

**Stability:** Unstable [ ] Stable [ X ]  
**Conditions To Avoid - Instability:** No data available.  
**Incompatibility - Materials To Avoid:** Incompatible with strong oxidizing agents.  
**Hazardous Decomposition Or Byproducts:** Decomposition may produce carbon monoxide and carbon dioxide.  
**Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [ X ]  
**Conditions To Avoid - Hazardous Reactions:** No data available.

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### 11. TOXICOLOGICAL INFORMATION

**Toxicological Information:** No data available.  
CAS# 68553-15-1:  
Standard Draize Test, Skin, Human, 300.0 MG, 3 D, Moderate.  
Result:  
Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Ear: Changes in cochlear structure or function.  
Nutritional and Gross Metabolic: Weight loss or decreased weight gain.  
- Cutaneous Toxicity, Proceedings of the 3rd Conference, 1976, D, V.A., and P. L, New York, Academic Press, Inc., London United Kingdom, Vol/p/yr: -,127, 1977

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
68553-15-1	Linseed oil, cobalt manganese salt {Linseed oil, manganese and cobalt driers}	n.a.	n.a.	n.a.	n.a.

### 12. ECOLOGICAL INFORMATION

No data available.

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose in accordance with applicable local, state, and federal regulations.

### 14. TRANSPORT INFORMATION

#### LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Not Regulated by 49 CFR

**DOT Hazard Class:**

**UN/NA Number:**

**Additional Transport Information:** For DOT information, contact W.M. Barr Technical Services.

### 15. REGULATORY INFORMATION

**This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:**  
[X] Yes [ ] No Acute (immediate) Health Hazard  
[ ] Yes [X] No Chronic (delayed) Health Hazard  
[ ] Yes [X] No Fire Hazard  
[ ] Yes [X] No Sudden Release of Pressure Hazard  
[ ] Yes [X] No Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
68553-15-1	Linseed oil, cobalt manganese salt {Linseed oil, manganese and cobalt driers}	CAA HAP, ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

### 16. OTHER INFORMATION

**Revision Date:** 09/08/2014

**Preparer Name:** W.M. Barr EHS Dept (901)775-0100

**Additional Information About This Product:** No data available.

**Company Policy or Disclaimer:** The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability

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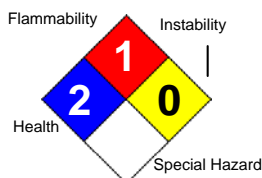
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and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

# Klean Strip Adhesive Remover / Klean Strip Premium Stripper

HEALTH	*	2
FLAMMABILITY		1
PHYSICAL		0
PPE	X	



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Supercedes Revision: 10/13/2009

## 1. Product and Company Identification

**Product Code:** 4015.26

**Product Name:** Klean Strip Adhesive Remover / Klean Strip Premium Stripper

**Manufacturer Information**

**Company Name:** W. M. Barr  
2105 Channel Avenue  
Memphis, TN 38113

**Phone Number:** (901)775-0100

**Emergency Contact:** 3E 24 Hour Emergency Contact (800)451-8346

**Information:** W.M. Barr Customer Service (800)398-3892

**Web site address:** www.wmbarr.com

**Preparer Name:** W.M. Barr EHS Dept (901)775-0100

**Intended Use:** Removal of adhesives, mastics, & contact cement from wood, concrete, metal and masonry.

### Synonyms

GKAS94325, QKAS94326, QKAS94326L, GKS3, QKS3, QKS3L, QKS34, PA11185

## 2. Hazards Identification

### GHS Hazard Phrases

No data available.

### GHS Precaution Phrases

No data available.

### GHS Response Phrases

No data available.

### GHS Storage and Disposal Phrases

No data available.

### Potential Health Effects (Acute and Chronic)

#### INHALATION ACUTE EXPOSURE EFFECTS:

Vapor harmful. May cause upper respiratory tract irritation and central nervous system depression with symptoms such as confusion, lightheadedness, nausea, vomiting, headache, drowsiness, and fatigue. Mist or vapor can irritate the throat and lungs. Causes formation of carbon monoxide in blood which may affect the cardiovascular system and central nervous system. Continued exposure may cause unconsciousness and even death. Intentional misuse of this product by deliberately concentrating and inhaling the vapors can be harmful or fatal. Concurrent exposure to carbon monoxide, smoking, and physical activity may increase the level of carboxyhemoglobin levels in the blood resulting in additive effects. This product is a simple asphyxiant.

#### SKIN CONTACT ACUTE EXPOSURE EFFECTS:

This product is a skin irritant. Product may be absorbed through the skin. Harmful if absorbed through the skin. Effects may range from mild irritation to severe pain, and possibly burns, depending on the intensity of contact. Prolonged or repeated contact may dry the skin and cause irritation. Symptoms include redness, itching, burning, drying and cracking of the skin, and skin burns.

#### EYE CONTACT ACUTE EXPOSURE EFFECTS:

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This material is an eye irritant. Vapors may irritate the eyes. Contact may cause tearing, redness, a stinging or burning feeling, swelling, and blurred vision.

**INGESTION ACUTE EXPOSURE EFFECTS:**

Poison. May be fatal or cause blindness if swallowed. May cause nausea or vomiting. Aspiration hazard. This material may be aspirated into the lungs during vomiting. If vomiting results in aspiration, chemical pneumonia could occur. It can be readily absorbed by the stomach and intestinal tract. Absorption through the gastrointestinal tract may produce central nervous system depression and systemic effects. Swallowing this material may irritate the mucous membranes of the mouth, throat, and esophagus. May cause cyanosis (blue coloring of the skin and nails from lack of oxygen).

**CHRONIC EXPOSURE EFFECTS:**

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Prolonged skin contact may cause irritation, redness, swelling and possible tissue destruction. Prolonged or repeated contact may cause dermatitis. Prolonged skin contact may result in absorption of a harmful amount of this material. May cause liver damage. May cause cancer based on animal data (see Section 11. Toxicological Information).

**Target Organs:**

Blood, central nervous system, liver, skin, cardiovascular system, eyes, respiratory system, lungs.

**Medical Conditions Generally Aggravated By Exposure**

Heart of cardiovascular disorders, kidney disorders, liver disorders, central nervous system disorders, respiratory system (including asthma and other breathing disorders), skin disorders and allergies.

Alcohol may enhance the toxic effects of methylene chloride exposure. May cross the placenta. May be excreted in breast milk.

**OSHA Regulatory Status:**

This material is classified as hazardous under OSHA regulations.

**3. Composition/Information on Ingredients**

Hazardous Components (Chemical Name)	CAS #	Concentration
1. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	60.0 -100.0 %
2. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	10.0 -30.0 %
3. Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	8052-41-3	1.0 -5.0 %

**4. First Aid Measures****Emergency and First Aid Procedures****INHALATION:**

If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered.

**SKIN CONTACT:**

Wash with soap and large quantities of water and seek medical attention if irritation from contact persists.

**EYE CONTACT:**

Immediately flush with water, remove any contact lens, continue flushing with water for at least 15 minutes, then get medical attention immediately.

**INGESTION:**

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Do not induce vomiting, unless directed to by medical personnel. Call your poison control center, hospital, emergency room, or physician immediately for instructions. Do not give anything by mouth to an unconscious person.

**Note to Physician**

This product contains methylene chloride and methanol.

This product contains methanol which can cause intoxication and central nervous system depression. 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. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis.

Methylene Chloride is an aspiration hazard. Risk of aspiration must be weighed against possible toxicity of the material when determining whether to induce emesis or to perform gastric lavage. This material sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmia in individuals exposed to this material. This material is metabolized to carbon monoxide. Consequently, elevations in carboxyhemoglobin as high as 50% have been reported, and levels may continue to rise for several hours after exposure has ceased. Data in experimental animals suggest there is a narrow margin between concentrations causing anesthesia and death. Adrenalin should never be given to a person overexposed to methylene chloride.

**Signs and Symptoms Of Exposure**

See Potential Health Effects.

**5. Fire Fighting Measures****Flammability Classification:**

NFPA Class IIIB

**Flash Pt:**

NP

**Explosive Limits:**

LEL: No data.

UEL: No data.

**Autoignition Pt:**

No data available.

**Fire Fighting Instructions**

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

**Flammable Properties and Hazards**

No flash to boil.

Contact of liquid or vapor with flame or hot surfaces will produce toxic gases and a corrosive residue that will cause deterioration of metal.

Vapors are heavier than air and will tend to collect in low areas.

**Hazardous Combustion Products**

Thermal decomposition or combustion may produce hydrogen chloride, chlorine, phosgene, and oxides of carbon.

**Suitable Extinguishing Media**

Use carbon dioxide, dry powder, water spray, or foam.

**Unsuitable Extinguishing Media**

None known.



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## 6. Accidental Release Measures

### Steps To Be Taken In Case Material Is Released Or Spilled

Isolate the immediate area. Prevent unauthorized entry. Eliminate all sources of ignition in area and downwind of the spill area. Stay upwind, out of low areas, and ventilate closed spaces before entering. All equipment used when handling this product must be grounded or non-sparking. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to compatible containers.

## 7. Handling and Storage

### Precautions To Be Taken in Handling

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. A source of clean water should be kept in the immediate work area for flushing of the eyes and skin.

Keep away from heat, sparks, flame, and any other source of ignition.

Do not smoke when anywhere near this material.

Ground and bond containers when transferring material.

Do not use in confined spaces, basements, bathrooms, etc, where vapors can build up and explode if ignited by an ignition source.

Vapors are heavier than air and will collect in low areas.

### Precautions To Be Taken in Storing

Store in a cool place in original container and protect from sunlight. Exposure to high temperatures or prolonged exposure to sun may cause can to leak or swell. Once opened, remover should be used within six months or properly disposed of to avoid can deterioration. Do not store near flames or at elevated temperatures.

Keep container tightly closed when not in use.

## 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA TWA	ACGIH TWA	Other Limits
1. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	PEL: 25 ppm STEL: 125 ppm (15 min)	TLV: 50 ppm	No data.
2. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	PEL: 200 ppm	TLV: 200 ppm STEL: 250 ppm	No data.
3. Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	8052-41-3	PEL: 500 ppm	TLV: 100 ppm	No data.

### Respiratory Equipment (Specify Type)

For use in areas with inadequate ventilation or fresh air, wear a properly maintained and properly fitted NIOSH approved self-contained breathing apparatus or powered air supply respirator or loose fitting hood.

For OSHA controlled work places and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding the appropriate TLV.

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A dust mask does not provide protection against vapors.

**Eye Protection**

Chemical goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury.

Chemical goggles or face shields are recommended when splashing or spraying of chemical is possible. A

faceshield provides more protection to help reduce chemical contact to the face and eyes.

**Protective Gloves**

Wear gloves with as much resistance to the chemical ingredients as possible. Laminate film gloves offer the best protection. Other glove materials, such as nitrile rubber, neoprene, and PVC will be degraded by methylene chloride, but may provide protection for some amount of time, based on the type of glove and the conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

**Other Protective Clothing**

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

**Engineering Controls (Ventilation etc.)**

Use only with adequate ventilation to prevent buildup of vapors. If work area is not well ventilated, do not use this product. Do not use in areas where vapors can accumulate and concentrate, such as basements, bathrooms or small enclosed areas.

Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- STOP -- ventilation is inadequate. Leave area immediately and move to fresh air.

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Work/Hygienic/Maintenance Practices**

A source of clean water should be available in the work area for flushing of the eyes and skin.

Wash hands thoroughly after use.

Do not eat, drink, or smoke in the work area.

Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use.

Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

**9. Physical and Chemical Properties**

<b>Physical States:</b>	[ ] Gas	[ X ] Liquid	[ ] Solid
<b>Melting Point:</b>	No data.		
<b>Boiling Point:</b>	No data.		
<b>Autoignition Pt:</b>	No data.		
<b>Flash Pt:</b>	NP		
<b>Specific Gravity (Water = 1):</b>	1.138		
<b>Density:</b>	9.462		
<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.		

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**Vapor Density (vs. Air = 1):** > 1  
**Evaporation Rate:** < 1  
**Solubility in Water:** Slight  
**Percent Volatile:** 97 % by weight.  
**VOC / Volume:** 23 % WT  
**pH:** 10.0 - 10.5

**Appearance and Odor**

Clear to white color.

**10. Stability and Reactivity****Stability:** Unstable [ ] Stable [ X ]**Conditions To Avoid - Instability**

No data available.

**Incompatibility - Materials To Avoid**

Incompatible with strong oxidizing agents; bases; strong caustics; strong acids; oxygen; nitrogen peroxide; reactive metals such as aluminum and magnesium; sodium; potassium; and nitric acid.

**Hazardous Decomposition Or Byproducts**

Decomposition may produce carbon monoxide and carbon dioxide, hydrogen chloride, chlorine gas, and small quantities of phosgene.

**Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [ X ]**Conditions To Avoid - Hazardous Reactions**

No data available.

**11. Toxicological Information****Toxicological Information**

This product has not been tested as a whole. Information below will be for individual ingredients.

Methylene Chloride:

ACUTE TOXICITY:

LC50 Rat inhalation 52 mg/L 4 hrs

LD50 Rat oral 985-1600 mg/kg

SKIN CORROSION / IRRITATION:

810 mg/24 hr skin rabbit - severe

100 mg/24 hr skin rabbit - moderate

SERIOUS EYE DAMAGE / IRRITATION:

162 mg eyes rabbit - moderate

10 mg eyes rabbit - mild

500 mg/24 hr eyes rabbit - mild

RESPIRATORY OR SKIN SENSITIZATION: Not a respiratory or skin sensitizer.

ASPIRATION HAZARD: Methylene chloride does present an aspiration hazard.

MUTAGENIC DATA: Positive results have been observed in the Ames test. In mammalian systems, responses have generally been negative.

IMMUNOTOXICITY: A study found there was no evidence of harm to the immune system of laboratory animals or reduced ability to combat disease.

NEUROTOXICITY: Tests in rats indicate no significant neurotoxic effects after exposure to concentrations up to 2,000 ppm for 90 days. No neurotoxic effects have been observed in humans at typical occupational exposure levels.

DEVELOPMENTAL/REPRODUCTIVE: No significant developmental effects were observed in female rats and mice exposed to 1,250 ppm during gestation. A similar result was observed in rats exposed to 4,500 ppm before and during gestation. A two-generation inhalation study showed no adverse reproductive effects in rats exposed

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to as much as 1,500 ppm for 14 weeks.

**CARCINOGEN STATUS:** Methylene chloride is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that are not considered relevant to worker exposure. Available epidemiological studies do not confirm an increased risk of cancer in humans. Available evidence suggests that this material is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

---

**Methanol:**

**ACUTE TOXICITY:**

LD50 Rat oral 5628 mg/kg

LC50 Rat inhalation 64000 ppm/4 hr

LC50 Rat inhalation 87.5 mg/L/6 hr

LD50 Mouse oral 7300 mg/kg

**SKIN CORROSION / IRRITATION:** LD50 Rabbit dermal 15,800 mg/kg bw

**SERIOUS EYE DAMAGE / IRRITATION:** Methanol is a mild to moderate eye irritant.

**RESPIRATORY OR SKIN SENSITIZATION:** Not a respiratory or skin sensitizer.

**ASPIRATION HAZARD:** Methanol presents an aspiration hazard.

**MUTAGENIC DATA:** No data.

**IMMUNOTOXICITY:** No data.

**NEUROTOXICITY:** Overexposure to methanol has been suggested as causing central nervous system damage in laboratory animals.

**DEVELOPMENTAL/REPRODUCTIVE:** The inhalation of methanol by pregnant rodents throughout the period of embryogenesis induces a wide range of concentration-dependent teratogenic and embryo-lethal effects.

Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain.

**CARCINOGEN STATUS:** There is no evidence from animal studies to suggest methanol is a carcinogen.

---

**Stoddard Solvent:**

**ACUTE TOXICITY:**

LD50 Rat oral >34,600 mg/kg

LC50 Rat Inhalation >21,400 mg/m<sup>3</sup> / 4 hrs

LD50 Rabbit skin 15,400 mg/kg

**SKIN CORROSION / IRRITATION:** Primary dermal studies (4 hr exposure) in rabbits utilizing mineral spirits containing less than 2% aromatics resulted in slight to moderate skin irritation.

**SERIOUS EYE DAMAGE / IRRITATION:** In a 15 minute inhalation period, eye irritation, characterized as a slight dryness, was reported in one of six volunteers (ages 22-61 years) at 150 ppm (860 mg/cu m). At 470 ppm (2700 mg/cu m), ocular irritation was reported by all six volunteers.

**RESPIRATORY OR SKIN SENSITIZATION:** Skin sensitization was not evident in animal studies.

**ASPIRATION HAZARD:** This material presents an aspiration hazard.

**MUTAGENIC DATA:** No data.

**IMMUNOTOXICITY:** No data.

**NEUROTOXICITY:** Repeated exposure to elevated concentrations of hydrocarbon solvents can produce a variety of transient CNS effects (e.g., dizziness, headache, narcosis, etc.)

**DEVELOPMENTAL/REPRODUCTIVE:** There were no treatment-related effects on pregnancy rate, mortality or gross post mortem observations in animal studies utilizing mineral spirits containing less than 2% aromatics. In vivo and in vitro studies on mineral spirits containing up to 22% aromatics indicate that these products are not genotoxic.

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**CARCINOGEN STATUS:** There is inadequate evidence for the carcinogenicity of petroleum solvents in humans. Animal studies have indicated that there may be some evidence of carcinogenic activity in male rats but no evidence in female rats. A low carcinogenic potential is suggested by a lack of genotoxic potential identified in in vivo and in vitro genetic toxicity tests.

**OTHER ADVERSE EFFECTS:** Chronic effects of ingestion and subsequent aspiration of mineral spirits into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction.

CAS# 67-56-1:

Reproductive Effects:, TDLo, Oral, Rat, 42.00 mL/kg, 21 day after birth.

Result:

Effects on Newborn: Behavioral.

- Neurotoxicology and Teratology., Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523,

Vol/p/yr: 24,519, 2002

Mutagenicity:, Mutation test: DNA damage., Oral, Rat, 10.00 UMOL/KG.

Result:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Tumorigenic: Tumors at site of application.

- Environmental Mutagenesis., For publisher information, see EMMUEG, New York, NY, Vol/p/yr: 4,317, 1982

Acute toxicity, LD50, Oral, Rat, 5628. MG/KG.

Result:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

- Gigiena Truda i Professional'nye Zabolevaniya. (Labor Hygiene and Occupational Disease), V/O

Mezhdunarodnaya Kniga, Moscow 113095 Russia, Vol/p/yr: 19(11), 27, 1975

Acute toxicity, LC50, Inhalation, Rat, 64000. PPM, 4 H.

Result:

Behavioral: Altered sleep time (including change in righting reflex).

Behavioral: Somnolence (general depressed activity).

Lungs, Thorax, or Respiration: Dyspnea.

- Raw Material Data Handbook, Vol.1: Organic Solvents, 1974., National Assoc. of Printing Ink Research

Institute, Francis McDonald Sinclair Memorial Labor, Lehigh Univ., Bethlehem, PA 18015, Vol/p/yr: 1,74, 1974

Acute toxicity, TDLo, Oral, Rat, 3.000 gm/kg.

Result:

Liver: Other changes.

- Toxicologist., Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311, Vol/p/yr: 72,315, 2003

Standard Draize Test, Skin, Species: Rabbit, 20.00 MG, 24 H, Moderate.

Result:

Blood: Other changes.

Biochemical: Metabolism (Intermediary): Other proteins.

- Prehled Prumyslove Toxikologie, Marhold, J., Organické Latky, Prague Czechoslovakia, Vol/p/yr: -, 187, 1986

Standard Draize Test, Eyes, Species: Rabbit, 40.00 MG, Moderate.

Result:

Blood: Other hemolysis with or without anemia.

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Blood:Other changes.

Biochemical: Metabolism (Intermediary): Other proteins.

- Union Carbide Data Sheet, Union Carbide Corp., 39 Old Ridgebury Rd., Danbury, CT 06817, Vol/p/yr: 3/24, 1970

Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG, 24 H, Moderate.

Result:

Blood:Changes in serum composition (e.g.

Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels: Phosphatases.

Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels: Transaminases.

- Prehled Prumyslove Toxikologie, Marhold, J., Organicke Latky, Prague Czechoslovakia, Vol/p/yr: -,187, 1986

CAS# 8052-41-3:

Acute toxicity, LD (Lethal dose), Oral, Rat, 5.000 GM/KG.

Result:

Behavioral: Somnolence (general depressed activity).

- Acute Toxicity Data. Journal of the American College of Toxicology, Part B., Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128, Vol/p/yr: 1,32, 1990

Acute toxicity, LC (Lethal concentration), Inhalation, Rat, 5500. MG/M3, 4 H.

Result:

Behavioral: Somnolence (general depressed activity).

- Acute Toxicity Data. Journal of the American College of Toxicology, Part B., Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128, Vol/p/yr: 1,32, 1990

Standard Draize Test, Eyes, Species: Rabbit, 500.0 MG, 24 H, Moderate.

Result:

Brain and Coverings: Changes in surface EEG.

Blood:Changes in serum composition (e.g.

Related to Chronic Data - changes in testicular weight.

- Acute Toxicity Data. Journal of the American College of Toxicology, Part B., Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128, Vol/p/yr: 1,32, 1990

## Chronic Toxicological Effects

Reports have associated repeated and prolonged occupational overexposure to solvents with irreversible brain and nervous system damage.

## Carcinogenicity/Other Information

IARC 2B - Possibly Carcinogenic to Humans

ACGIH A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	Possible	2B	A3	Yes
2. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	n.a.	n.a.	n.a.	n.a.
3. Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	8052-41-3	n.a.	n.a.	n.a.	n.a.

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**12. Ecological Information****General Ecological Information**

No information available for this product as a whole.

Methylene Chloride:

TOXICITY: LC50 310 mg/L 96 hrs (static) Fathead Minnow; LC50 220 mg/L 96 hrs (static) Bluegill Sunfish; LC50 256 mg/L 96 hrs Mysid Shrimp

PERSISTENCE AND DEGRADABILITY: If released to air, a vapor pressure of 435 mm Hg at 25 deg C indicates dichloromethane will exist solely as a vapor in the ambient atmosphere. This material released to the atmosphere will degrade by reaction with hydroxyl radicals with a half-life of several months. It is not subject to direct photooxidation. On land is expected to evaporate rapidly into the atmosphere due to its high vapor pressure. It is poorly adsorbed to soil and can leach into the groundwater. Calculated Adsorption Coefficient (log KOC) is 1. This material is subject to rapid evaporation, with estimated evaporative half-lives ranging from 3 to 5.6 hours under moderate mixing conditions. This material has a negligible rate of hydrolysis.

Biodegradation may occur in groundwater, but will be very slow compared with evaporation.

BIOACCUMULATIVE POTENTIAL: Bioconcentration potential in aquatic organisms is low with BCF of 2.

MOBILITY IN SOIL: If released to soil, dichloromethane is expected to have very high mobility based upon an estimated Koc of 24.

OTHER ADVERSE EFFECTS: No data.

---

Methanol:

TOXICITY: Methanol is of low toxicity to aquatic organisms. LC50 Pimephales promelas (fathead minnows) 29.4 g/L/96 hr, (28-29 days old), confidence limit= 28.5-30.4; Test conditions: Water temp= 25 deg C, dissolved oxygen= 7.3 mg/L, water hardness= 43.5 mg/l calcium carbonate, alkalinity= 46.6 calcium carbonate, tank volume= 6.3 L, additions= 5.71 V/D, pH= 7.66 (0.03).

PERSISTENCE AND DEGRADABILITY: If released to the atmosphere, a vapor pressure of 127 mm Hg at 25 deg C indicates that methanol will exist solely in the vapor phase. Vapor phase methanol is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 17 days. Volatilization from moist soil surfaces is expected to be an important fate process based upon a Henry's Law constant of  $4.55 \times 10^{-6}$  atm-cu m/mole. Methanol may also volatilize from dry soils based upon its vapor pressure. Biodegradation of methanol in soils is expected to occur rapidly based on half-lives in a sandy silt loam from Texas and a sandy loam from Mississippi of 1 and 3.2 days, respectively. If released into water, methanol is not expected to adsorb to suspended solids and sediment based upon the estimated Koc.

Volatilization from water surfaces is expected to be an important fate process based upon this compound's Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 3 and 35 days, respectively. Biodegradation is expected to occur in natural waters since methanol is degraded quickly in soils and was biodegraded rapidly in various aqueous screening tests using sewage seed or activated sludge.

Hydrolysis of methanol and photolysis in sunlit surface waters are not expected since methanol lacks functional groups that are susceptible to hydrolysis or photolysis under environmental conditions.

BIOACCUMULATIVE POTENTIAL: BCF values of less than 10, measured in fish suggests bioconcentration in aquatic organisms is low.

MOBILITY IN SOIL: If released to soil, methanol is expected to have very high mobility based upon an estimated Koc of 1.

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Stoddard Solvent:

TOXICITY: This mixture contains components that are potentially toxic to freshwater and saltwater ecosystems.

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This material may be harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment.

**PERSISTENCE AND DEGRADABILITY:** This material will normally float on water. Components will evaporate rapidly.

**BIOACCUMULATIVE POTENTIAL:** The octanol-water partition coefficient for this material is expected to be in the range of 2.1 to 5.

**MOBILITY IN SOIL:** No data.

**OTHER ADVERSE EFFECTS:** No data.

**Results of PBT and vPvB assessment**

CAS# 67-56-1:

LC50, Fathead Minnow (*Pimephales promelas*), 28400. MG/L, 24 H, Mortality, Water temperature: 25 C C.

Result:

Sex Effects.

- Toxicity and Metabolism Studies with EPA (Environmental Protection Agency) Priority Pollutants and Related Chemicals in Freshwater Organisms, Call, D.J., L.T. Brooke, N. Ahmad, and J.E. Richter, 1983

LC50, Fathead Minnow (*Pimephales promelas*), 28400. MG/L, 48 H, Mortality, Water temperature: 25 C C.

Result:

Sex Effects.

- Toxicity and Metabolism Studies with EPA (Environmental Protection Agency) Priority Pollutants and Related Chemicals in Freshwater Organisms, Call, D.J., L.T. Brooke, N. Ahmad, and J.E. Richter, 1983

LC50, Fathead Minnow (*Pimephales promelas*), 28100. MG/L, 96 H, Mortality, Water temperature: 25 C C.

Result:

Sex Effects.

- Toxicity and Metabolism Studies with EPA (Environmental Protection Agency) Priority Pollutants and Related Chemicals in Freshwater Organisms, Call, D.J., L.T. Brooke, N. Ahmad, and J.E. Richter, 1983

LC50, Water Flea (*Daphnia magna*), larva(e), 100000. UG/L, 96 H, Mortality, Water temperature: 20 C C, pH: 8.50.

Result:

Sex Effects.

- Simultaneous Evaluation of the Acute Effects of Chemicals on Seven Aquatic Species, Ewell, W.S., J.W. Gorsuch, R.O. Kringle, K.A. Robillard, and R.C. Spiegel, 1986

LC50, Water Flea (*Daphnia magna*), neonate, 4816. MG/L, 24 H, Mortality, Water temperature: 20 C C.

Result:

Age Effects.

- Acute Toxicity Test with *Daphnia magna*: An Alternative to Mammals in the Prescreening of Chemical Toxicity?, Guilhermino, L., T. Diamantino, M.C. Silva, and A.M.V.M. Soares, 2000

LC50, Water Flea (*Daphnia magna*), neonate, 3289. MG/L, 48 H, Mortality, Water temperature: 20 C C.

Result:

Age Effects.

- Acute Toxicity Test with *Daphnia magna*: An Alternative to Mammals in the Prescreening of Chemical Toxicity?, Guilhermino, L., T. Diamantino, M.C. Silva, and A.M.V.M. Soares, 2000



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## 13. Disposal Considerations

### Waste Disposal Method

Dispose in accordance with applicable local, state, and federal regulations.

Keep out of bodies of water.

## 14. Transport Information

### LAND TRANSPORT (US DOT)

<b>DOT Proper Shipping Name</b>	Paint Related Material
<b>DOT Hazard Class:</b>	8
<b>DOT Hazard Label:</b>	CORROSIVE
<b>UN/NA Number:</b>	UN3066
<b>Packing Group:</b>	II

### LAND TRANSPORT (Canadian TDG)

<b>UN Number:</b>	3066
<b>Hazard Class:</b>	8 - CORROSIVE
<b>Packing Group:</b>	II

### Additional Transport Information

For D.O.T. information, contact W.M. Barr Technical Services at 1-800-398-3892.

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Limited quantities of 1 liter or less may be allowed depending on the mode of transportation. Refer to 49 CFR, IMDG Code or IATA Dangerous Goods Regulations for this information.

## 15. Regulatory Information

### Canadian Chemical Lists

Hazardous Components (Chemical Name)	CAS #	Canadian NPRI	Canadian IDL
1. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	Yes	Yes
2. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	Yes	Yes
3. Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	8052-41-3	Yes	Yes

### US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	No	Yes 1000 LB	Yes	Yes
2. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	No	Yes 5000 LB	Yes	No
3. Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	8052-41-3	No	No	No	No

### Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	HAP	Yes	Inventory, 4 Test, 8A CAIR	Yes

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Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
2. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	HAP	No	Inventory	Yes
3. Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits}	8052-41-3	No	No	Inventory	No

### International Regulatory Lists

#### EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

☒ Yes ☐ No Acute (immediate) Health Hazard

☒ Yes ☐ No Chronic (delayed) Health Hazard

☐ Yes ☒ No Fire Hazard

☐ Yes ☒ No Sudden Release of Pressure Hazard

☐ Yes ☒ No Reactive Hazard

### Regulatory Information

Methylene Chloride WHMIS Classification: D1B, D2A, D2B

Methylene Chloride WHMIS Health Effects Criteria Met by this Chemical:

D2B - Eye irritation - toxic - other

D2B - Skin irritation - toxic - other

D2A - Carcinogenicity - very toxic - other

D2B - Mutagenicity - toxic - other

D1B - TDG class 6.1 packing group III - toxic - immediate

Methylene Chloride WHMIS Ingredient Disclosure List: Included for disclosure at 0.1% or greater.

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Methanol CAS Registry Number: 67-56-1

Methanol WHMIS Classification: B2, D1B, D2A, D2B

Methanol WHMIS Health Effects Criteria Met by this Chemical:

D1B - TDG class 6.1 packing group unknown - toxic - immediate

D2A - Teratogenicity and embryotoxicity - very toxic - other

D2B - Eye irritation - toxic - other

Methanol WHMIS Ingredient Disclosure List: Included for disclosure at 1% or greater. Meets criteria for disclosure at 0.1%.

---

Stoddard Solvent CAS# 8052-41-3

WHMIS Classification:

B3 - Flammable and combustible material - Combustible liquid

D2B - Poisonous and infectious material - Other effects - Toxic

WHMIS Health Effects Criteria Met by this Chemical: D2B - Skin irritation - toxic - other

WHMIS Ingredient Disclosure List: Included for disclosure at 1% or greater.

This product has been classified according to the hazard criteria of the Controlled Products Regulations.

Concentrations reported in section 2 are weight/weight.

Ingredients disclosed in section 2 are on Canadian DSL.

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## Klean Strip Adhesive Remover / Klean Strip Premium Stripper

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### 16. Other Information

#### Company Policy or Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

**Revision Date:** 05/17/2011

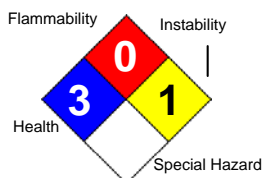
# MATERIAL SAFETY DATA SHEET

## Klean-Strip Muriatic Acid

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FLAMMABILITY	0	
PHYSICAL	0	
PPE	H	



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Supercedes Revision: 12/19/2005

### 1. Product and Company Identification

**Product Code:** 905  
**Product Name:** Klean-Strip Muriatic Acid  
**Reference #:** 905  
**Manufacturer Information**  
**Company Name:** W. M. Barr  
2105 Channel Avenue  
Memphis, TN 38113  
**Phone Number:** (901)775-0100  
**Emergency Contact:** 3E 24 Hour Emergency Contact (800)451-8346  
**Information:** W.M. Barr Customer Service (800)398-3892  
**Web site address:** www.wmbarr.com  
**Preparer Name:** W.M. Barr EHS Department (901)775-0100  
**Synonyms**  
GMA58  
**Revision Date:** 08/09/2011

### 2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	OSHA TWA	ACGIH TWA	Other Limits
1. Hydrochloric acid {Hydrogen chloride}	7647-01-0	9.0 -36.0 %	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. Hydrochloric acid {Hydrogen chloride}	7647-01-0	No data.	5 ppm	No data.	2 ppm)

### 3. Hazards Identification

#### Emergency Overview

Poison! Causes severe burns to eyes. Skin irritant. May be fatal if swallowed. Vapor harmful.

#### Potential Health Effects (Acute and Chronic)

Inhalation Acute Exposure Effects:

Inhalation of muriatic acid vapors can cause irritation of respiratory tract, burns, pulmonary edema, and coughing.

Inhalation long term exposure:

Long term exposure to muriatic acid can cause erosion of the teeth.

Skin Contact Acute Exposure Effects:

May cause severe burns, irritation, pain, and ulceration.

Skin contact long term exposure:

May cause dermatitis.

Eye Contact Acute Exposure Effects:

May cause severe burns, eye damage, and blindness.

Eye contact long term exposure:

No effects are known.

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## Klean-Strip Muriatic Acid

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### Ingestion Acute Exposure Effects:

Poison. May be fatal if swallowed. May cause severe irritation, perforation of the intestinal tract, and burns in mouth, pharynx, and gastrointestinal tract. May cause intense pain, nausea, vomiting, bleeding, circulating collapse, and shock.

### Signs and Symptoms Of Exposure

See potential health effects.

### Medical Conditions Generally Aggravated By Exposure

Respiratory system (including asthma and other breathing disorders)

### OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

## 4. First Aid Measures

### Emergency and First Aid Procedures

#### Inhalation:

If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered. Obtain medical attention immediately.

#### Skin Contact:

Wash with soap and large quantities of water and remove contaminated clothing, jewelry, and shoes immediately. Wash for 15 minutes. If irritation persists, seek medical attention.

#### Eye Contact:

Immediately begin to flush with large quantities of water, remove any contact lens. Continue to flush with water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all of the eye and lid tissues. Flushing the eyes with water within several seconds is essential to achieve maximum effectiveness. Seek immediate medical attention.

#### Ingestion:

Do not induce vomiting. Give milk of magnesia or large amounts of water. Never give anything by mouth to an unconscious person. Call your poison control center, hospital emergency room or physician immediately for instructions. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops.

### Note to Physician

Call your local poison control center for further information.

The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage. Probable mucosal damage may contraindicate the use of gastric lavage.

## 5. Fire Fighting Measures

#### Flash Pt:

No data.

#### Explosive Limits:

LEL: No data.

UEL: No data.

#### Autoignition Pt:

No data available.

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**Fire Fighting Instructions**

Keep unnecessary people away, isolate hazard area and deny entry. Wear NIOSH approved positive -pressure self-contained breathing apparatus. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame. Move containers from fire if it can be done without risk.

**Flammable Properties and Hazards**

Non-flammable

**Hazardous Combustion Products**

Hydrogen chloride and toxic gases.

**Extinguishing Media**

Use extinguishing agent suitable for type of surrounding fire.

**Unsuitable Extinguishing Media**

No data available.

## 6. Accidental Release Measures

**Steps To Be Taken In Case Material Is Released Or Spilled****Small Spills:**

Keep unnecessary people away and isolate hazard area. Wear appropriate personal protective equipment. Take up liquid with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable. Material may be neutralized with baking soda, soda ash, or dilute caustic soda. Stay upwind, out of low areas, and ventilate closed spaces before entering.

**Large Spills:**

Evacuation of surrounding area may be necessary for large spills. Wear appropriate personal protective equipment. Completely contain spilled material with dikes, sandbags, etc. Shut off ventilation system if needed. Reprocess or reuse if possible. Neutralize with soda ash or dilute caustic soda. Collect with appropriate absorbent and place into suitable container. Keep out of sewers and water supplies. This material is acidic and may lower the pH of the surface waters with low buffering capacity.

## 7. Handling and Storage

**Precautions To Be Taken in Handling**

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

When mixing, slowly add acid to water to minimize heat generation and spattering. Never add water to acid.

Keep container tightly closed when not in use. Keep container properly labeled.

**Precautions To Be Taken in Storing**

Keep container tightly closed when not in use. Store in a cool, dry place away from direct sunlight and heat to avoid container deterioration. Avoid storage at extreme high or low temperatures. Protect from freezing. Keep container properly labeled. Keep separated from incompatible substances.

Store in acid-resistant plastic, glass containers, or rubber-lined steel containers. Do not store in aluminum containers or use aluminum fittings or transfer lines.

## 8. Exposure Controls/Personal Protection

### Respiratory Equipment (Specify Type)

Where vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator with acid gas cartridges is required. When an air-purifying respirator is not adequate or for spills and/or emergencies of unknown concentrations, a NIOSH approved self-contained breathing apparatus or airline respirator with full-face piece is required. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

For OSHA controlled work place and other regular users. Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV.

For occasional consumer use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator. A dust mask does not provide protection against vapors.

### Eye Protection

Safety glasses with side shields. Wearing chemical goggles with a face shield is recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn.

Provide an emergency eyewash station or quick drench shower in the immediate work area.

### Protective Gloves

Wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with products.

### Other Protective Clothing

Wear chemical resistant clothing and rubber boots when potential for contact with the material exists.

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

### Engineering Controls (Ventilation etc.)

Use closed system when possible. Provide local exhaust ventilation where vapor or mist may be generated. Ensure compliance with applicable exposure limits.

Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, burning sensations, or eye-watering -- Stop -- ventilation is inadequate. Leave area immediately.

### Work/Hygienic/Maintenance Practices

A source of clean water should be available in the work area for flushing of eyes and skin.

Wash hands thoroughly after use and before eating, drinking, or smoking. Do not eat, drink, or smoke in the work area. Discard any clothing or other protective equipment that cannot be decontaminated.

## 9. Physical and Chemical Properties

**Physical States:** [ ] Gas [ X ] Liquid [ ] Solid  
**Melting Point:** No data.  
**Boiling Point:** 120 F

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**Autoignition Pt:** No data.  
**Flash Pt:** No data.  
**Specific Gravity (Water = 1):** No data.  
**Bulk density:** 9.660 LB/GA  
**Vapor Pressure (vs. Air or mm Hg):** No data.  
**Vapor Density (vs. Air = 1):** No data.  
**Evaporation Rate:** No data.  
**Solubility in Water:** No data.  
**Percent Volatile:** 100 % by weight.  
**Appearance and Odor**  
No data available.

## 10. Stability and Reactivity

**Stability:** Unstable [ ] Stable [ X ]

### Conditions To Avoid - Instability

No data available.

### Incompatibility - Materials To Avoid

Incompatible with strong oxidizing agents, strong caustics, alkalis and alkali metals, mercuric sulfate, perchloric acid, carbides of calcium, cesium, rubidium, acetylides of cesium and rubidium, phosphides of calcium and uranium, lithium silicide, cyanides (which may produce lethal concentrations of hydrocyanic acid), and common and active metals (which produce flammable hydrogen gas).

### Hazardous Decomposition Or Byproducts

Thermal decomposition may produce hydrogen chloride vapors.

**Hazardous Polymerization:** Will occur [ ] Will not occur [ X ]

### Conditions To Avoid - Hazardous Polymerization

No data available.

## 11. Toxicological Information

### Toxicological Information

LC50 Rat Inhalation 3,124 ppm/1 hr

LD50 Rat Oral 238 - 277 mg/kg

LD50 Mouse Dermal 1,449 mg/kg

### Chronic Toxicological Effects

Long term exposure to muriatic acid can cause erosion of the teeth.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Hydrochloric acid {Hydrogen chloride}	7647-01-0	n.a.	3	A4	n.a.

## 12. Ecological Information

### General Ecological Information

LC50 values of acute fish toxicity tests varied from 4.92 to 282 mg/L due to the variation in buffer capacity of the test medium.

## 13. Disposal Considerations

### Waste Disposal Method

Dispose in accordance with applicable local, state, and federal regulations.



# MATERIAL SAFETY DATA SHEET

## Klean-Strip Muriatic Acid

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### 14. Transport Information

#### LAND TRANSPORT (US DOT)

**DOT Proper Shipping Name** Hydrochloric acid  
**DOT Hazard Class:** 8  
**DOT Hazard Label:** CORROSIVE  
**UN/NA Number:** UN1789  
**Packing Group:** II

#### Additional Transport Information

No data available.

### 15. Regulatory Information

#### US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Hydrochloric acid {Hydrogen chloride}	7647-01-0	Yes 500 LB	Yes 5000 LB	Yes	No
Other US EPA or State Lists					
Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Hydrochloric acid {Hydrogen chloride}	7647-01-0	HAP	No	Inventory, 4 Test	No

#### EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

☒ Yes ☐ No Acute (immediate) Health Hazard  
☒ Yes ☐ No Chronic (delayed) Health Hazard  
☐ Yes ☒ No Fire Hazard  
☐ Yes ☒ No Sudden Release of Pressure Hazard  
☒ Yes ☐ No Reactive Hazard

#### Regulatory Information Statement

All components of this material are listed on the TSCA Inventory or are exempt.

### 16. Other Information

#### Company Policy or Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

**SAFETY DATA SHEET**  
**Klean-Strip VM&P Naphtha**

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Printed: 09/19/2014

Revision: 09/05/2014

Supersedes Revision: 03/17/2014

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name:</b>	Klean-Strip VM&P Naphtha	
<b>Company Name:</b>	W. M. Barr 2105 Channel Avenue Memphis, TN 38113	<b>Phone Number:</b> (901)775-0100
<b>Web site address:</b>	www.wmbarr.com	
<b>Emergency Contact:</b>	3E 24 Hour Emergency Contact	(800)451-8346
<b>Information:</b>	W.M. Barr Customer Service	(800)398-3892
<b>Intended Use:</b>	For thinning oil-based paint, enamel & varnish.	
<b>Synonyms:</b>	QVM46, GVM46, CVM46	

## 2. HAZARDS IDENTIFICATION

**Flammable Liquids, Category 2**

**Germ Cell Mutagenicity, Category 1B**

**Aspiration Toxicity, Category 1**



**GHS Signal Word:** **Danger**

**GHS Hazard Phrases:**  
H225: Highly flammable liquid and vapor.  
H340: May cause genetic defects.  
H304: May be fatal if swallowed and enters airways.

**GHS Precaution Phrases:**  
P233: Keep container tightly closed.  
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical/ventilating/lighting equipment.  
P243: Take precautionary measures against static discharge.  
P242: Use only non-sparking tools.  
P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P281: Use personal protective equipment as required.

**GHS Response Phrases:**  
P370+378: In case of fire, use dry chemical to extinguish.  
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.  
P308+313: IF exposed or concerned: Get medical attention/advice.  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P331: Do NOT induce vomiting.

**GHS Storage and Disposal Phrases:**  
P403+235: Store in cool/well-ventilated place.  
P501: Dispose of contents/container according to local, state and federal regulations.  
P405: Store locked up.

# SAFETY DATA SHEET

## Klean-Strip VM&P Naphtha

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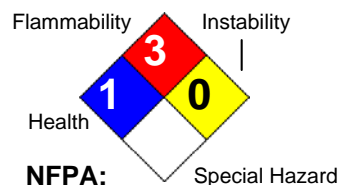
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**Hazard Rating System:**

HEALTH	*	2
FLAMMABILITY		3
PHYSICAL		0
PPE		

**HMIS:****OSHA Regulatory Status:**

This material is classified as hazardous under OSHA regulations.

**Potential Health Effects  
(Acute and Chronic):****Inhalation Acute Exposure Effects:**

Vapor harmful. May cause dizziness, headache, irritation of respiratory tract, weakness, drowsiness, depression of central nervous system, and watering of eyes. Severe overexposure may cause unconsciousness, anesthesia, irregular heartbeat, and death. Intentional misuse of this product by deliberately concentrating and inhaling can be harmful or fatal.

**Skin Contact Acute Exposure Effects:**

This product is a skin irritant. It may be absorbed through the skin. It may cause irritation, dermatitis, drying of skin, and numbness in fingers and arms. May increase severity of symptoms listed under inhalation.

**Eye Contact Acute Exposure Effects:**

This material is an eye irritant. It may cause irritation, redness, stinging, tearing, excessive swelling of the conjunctiva; and or excessive blinking.

**Ingestion Acute Exposure Effects:**

Harmful or fatal if swallowed. Aspiration hazard. May cause nausea, vomiting, gastrointestinal irritation, or diarrhea.

**Chronic Exposure Effects:**

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Prolonged or repeated contact may cause dermatitis. May cause skin irritation, permanent central nervous system changes, kidney damage, and liver damage.

**Primary Routes of Exposure:**

Inhalation; ingestion; and dermal.

**Medical Conditions Generally Aggravated By Exposure:** Diseases of the skin, respiratory system, liver, central nervous system and kidneys.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
64742-49-0	Hydrotreated light naphtha	95.0 -100.0 %

## 4. FIRST AID MEASURES

**Emergency and First Aid Procedures:**

**Inhalation:**

If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered.

**Skin Contact:**

Irritation may result. Immediately wash with soap and water.

**Eye Contact:**

Immediately flush with water, remove any contact lenses, continue flushing with water for at least 15 minutes, then get medical attention.

**Ingestion:**

Do not induce vomiting. Call your local poison control center, hospital emergency room, or physician immediately for instructions.

**Note to Physician:**

Call your local poison control center for further information.

## 5. FIRE FIGHTING MEASURES

OSHA Class IB

**Flash Pt:**

69.00 F Method Used: TAG Closed Cup

**Explosive Limits:**

LEL: 0.9 UEL: 6.7

**Autoignition Pt:**

47.50 F

**Suitable Extinguishing Media:** Use carbon dioxide, dry powder, or foam.

**Unsuitable Extinguishing Media:**

Solid streams of water may be ineffective and spread material. Product will normally float on water.

**Fire Fighting Instructions:**

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

**Flammable Properties and Hazards:**

Product will normally float on water.

## 6. ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken In Case Material Is Released Or Spilled:**

**Cleanup:**

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area.

**Small Spills:**

Take up liquid with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.

**Large Spills:**

Dike far ahead of spill for later disposal.

## 7. HANDLING AND STORAGE

**Precautions To Be Taken in Handling:**

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Do not use this product near any source of heat or open flame, furnace areas, pilot

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## Klean-Strip VM&P Naphtha

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lights, stoves, etc.

Do not use in small enclosed spaces, such as basements and bathrooms. Vapors can accumulate and explode if ignited.

Do not spread this product over large surface areas because fire and health safety risks will increase dramatically.

### Precautions To Be Taken in Storing:

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures. Keep below 120 degrees Fahrenheit.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
64742-49-0	Hydrotreated light naphtha	No data.	No data.	No data.
<b>Respiratory Equipment (Specify Type):</b>	For OSHA controlled work place and other regular users --Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors. A dust mask does not provided protection against vapors.			
<b>Eye Protection:</b>	Where contact with the eyes or face is likely, a faceshield or chemical splash goggles should be worn to prevent eye contact.			
<b>Protective Gloves:</b>	Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile rubber may provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.			
<b>Other Protective Clothing:</b>	Various application methods can dictate the use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.			
<b>Engineering Controls (Ventilation etc.):</b>	Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate such as basements, bathrooms, or small enclosed areas. Whenever possible, use outdoors in an open area. If using indoors, open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- Stop -- ventilation is inadequate. Leave area immediately. If the work area is not well ventilated, then do not use this product. A dust mask does not provide protection against vapors.			
<b>Work/Hygienic/Maintenance Practices:</b>	Wash hands thoroughly after use and before eating, drinking, smoking, or using the restroom.			
	Do not eat, drink, or smoke in the work area.			
	Discard any clothing or other protective equipment that cannot be decontaminated.			
	Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.			

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical States:** ☐ Gas ☒ Liquid ☐ Solid

**Appearance and Odor:** Transparent, colorless  
Hydrocarbon solvent odor

**Melting Point:** No data.

**Boiling Point:** 264.00 F - 291.00 F

**Autoignition Pt:** 47.50 F

**Flash Pt:** 69.00 F Method Used: TAG Closed Cup

**Explosive Limits:** LEL: 0.9 UEL: 6.7

**Specific Gravity (Water = 1):** 0.76

**Density:** 6.34 LB/GL

**Vapor Pressure (vs. Air or mm Hg):** 11 MM HG at 20.0 C

**Vapor Density (vs. Air = 1):** 4 Air = 1

**Evaporation Rate:** No data.

**Solubility in Water:** < 0.1% w/w

**Percent Volatile:** 99.999 % by weight.

**VOC / Volume:** 762.0000 G/L

## 10. STABILITY AND REACTIVITY

**Stability:** Unstable ☐ Stable ☒

**Conditions To Avoid - Instability:** No data available.

**Incompatibility - Materials To Avoid:** Incompatible with strong oxidizing agents.

**Hazardous Decomposition Or Byproducts:** Decomposition may produce carbon monoxide and carbon dioxide.

**Possibility of Hazardous Reactions:** Will occur ☐ Will not occur ☒

**Conditions To Avoid - Hazardous Reactions:** No data available.

## 11. TOXICOLOGICAL INFORMATION

**Toxicological Information:** Studies on laboratory animals have associated similar materials with eye and respiratory tract irritation. Studies on laboratory animals have shown similar materials to cause skin irritation after repeated or prolonged contact. Repeated direct application of mineral spirits to the skin can produce defatting dermatitis and kidney damage in laboratory animals. The most common effects observed in repeated dose toxicity studies are histological changes consistent with  $\alpha_2$ -globulin mediated renal effect in male rats. Because  $\alpha_2$ -globulin is not present in humans, any effects associated with  $\alpha_2$ -globulin induction in the male rat kidney are not useful in assessing human risk. In addition, several laboratory studies have demonstrated effects in liver function as well as hematological or urine chemistry profile changes following repeated exposures to mineral spirits in rats. In general, these effects have not been dose-related. The significance of these animal study results to human health is unclear.

**Chronic Toxicological Effects:** Refer to section 3 potential health effects

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CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
64742-49-0	Hydrotreated light naphtha	n.a.	n.a.	n.a.	n.a.

## 12. ECOLOGICAL INFORMATION

No data available.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

## 14. TRANSPORT INFORMATION

### LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Paint Related Material

**DOT Hazard Class:** 3 FLAMMABLE LIQUID

**UN/NA Number:** UN1263

**Packing Group:** II



**Additional Transport Information:**

For D.O.T. information, contact W.M. Barr Technical Services at 1-800-398-3892.

The shipper / supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

## 15. REGULATORY INFORMATION

**This material meets the EPA** ☒ Yes ☐ No Acute (immediate) Health Hazard  
**'Hazard Categories' defined** ☒ Yes ☐ No Chronic (delayed) Health Hazard  
**for SARA Title III Sections** ☒ Yes ☐ No Fire Hazard  
**311/312 as indicated:** ☐ Yes ☒ No Sudden Release of Pressure Hazard  
☐ Yes ☒ No Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
64742-49-0	Hydrotreated light naphtha	CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

**Regulatory Information Statement:** All components of this material are listed on the TSCA Inventory or are exempt.

## 16. OTHER INFORMATION

**Revision Date:** 09/05/2014

**Preparer Name:** W.M. Barr EHS Department (901)775-0100

**Additional Information About This Product:** No data available.

### Company Policy or Disclaimer:

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these

**SAFETY DATA SHEET**  
**Klean-Strip VM&P Naphtha**

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materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.



\*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\*

Version Date.....08/06/97  
Print Date.....10/23/97

600 FLUX

SECTION 1

PRODUCT IDENTIFICATION

COMPANY NAME WHO SENT MSDS... HARRIS WELCO  
COMPANY ADDRESS..... 1851 YORK ROAD KINGS MOUNTAIN, NC 28086 (704) 739-6421  
EMERGENCY PHONE NUMBER..... (800) 424-9300  
MSDS VERSION NUMBER..... 2  
TRADE NAME..... 600 FLUX  
HAZARD RATING (HMIS)..... HEALTH-1 FLAMMABILITY-0 REACTIVITY-0 OTHER-0  
HMIS DESIGNATION KEY..... 1-SEVERE HAZARD 2-SERIOUS HAZARD 3-MODERATE HAZARD 4-SLIGHT HAZARD 0-MINIMAL HAZARD

SECTION 2

HAZARDOUS COMPONENTS

MATERIAL	% BY WEIGHT	CAS NUMBER	OSHA PEL	ACGIH TLV (mg/m <sup>3</sup> )	SEC 313
BORAN	NA	1330-43-4	1 MG/M3	ACGIH	
BORIC ACID	NA	10043-35-3	1000/1000	OSHA	

SECTION 3

PHYSICAL PROPERTIES

BOILING POINT..... NA  
MELTING POINT..... NA  
VAPOR PRESSURE..... NA  
VAPOR DENSITY (AIR = 1)..... NA  
SOLUBILITY IN WATER..... MODERATE  
SPECIFIC GRAVITY..... 1.55  
EVAPORATION RATE..... NA  
APPEARANCE AND ODOR..... WHITE POWDER WITH NO CHARACTERISTIC ODOR

SECTION 4

FIRE AND EXPLOSION DATA

FLASH POINT..... NA  
EXTINGUISHING MEDIA... NONE. PRODUCT IS AN INHERENT FIRE RETARDANT.  
SPECIAL PROCEDURES... NA  
UNUSUAL HAZARDS..... NA

SECTION 5

REACTIVITY DATA

STABILITY..... STABLE  
CONDITIONS TO AVOID..... NA  
HAZARDOUS POLYMERIZATION..... NA  
INCOMPATIBILITY..... ACETIC ANHYDRIDE, ELEMENTAL POTASSIUM  
HAZARDOUS DECOMPOSITION PRODUCTS... NA

SECTION 6

HEALTH HAZARD DATA

ROUTES OF ENTRY..... SWALLOWING, SKIN ABSORPTION, INHALATION, SKIN CONTACT, EYE CONTACT.  
HEALTH HAZARDS..... SWALLOWING-NAUSEA, VOMITING & DIARRHEA. SKIN ABSORPTION-BORON NOT ABSORBED THROUGH INTACT SKIN. IRRITATION-IRRITATION TO RESPIRATORY SYSTEM, SNEEZING, COUGHING. PRE-EXISTING DISORDERS AGGRAVATED. EYE CONTACT-IRRITATION TO EYE SURFACE.  
CARCINOGENICITY..... NA  
SIGNS & SYMPTOMS OF EXPOSURE..... SEE ABOVE  
MEDICAL CONDITIONS FROM EXPOSURE..... SEE ABOVE  
EMERGENCY & FIRST AID..... SWALLOWING-CALL PHYSICIAN OR POISON CONTROL CENTER. ADVISE OF SECTION II. SKIN-IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. REMOVE ALL RESIDUE. IF RASH. CALL PHYSICIAN. INHALATION-REMOVE TO FRESH AIR. IF PONES INHALED, CALL PHYSICIAN. EYES-FLUSH WITH WATER

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(Continued on next page.)

## 600 FLUX

### SECTION 6

### HEALTH HAZARD DATA

CONT'D

#### ADDITIONAL INFORMATION

AT LEAST 15 MINUTES. GET MEDICAL ATTENTION.

TARGET ORGAN: MAY BE HARMFUL IF SWALLOWED AND IRRITATING TO SKIN AND EYES. CHRONIC EFFECTS: COUGHING, CNS EFFECTS, ERYTHEMA, NAUSEA. NOTE: WHEN USED AS INTENDED, FUMES OF BORON OXIDE WILL BE GIVEN OFF WHICH ARE HAZARDOUS.

### SECTION 7

### PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL AND LEAK PROCEDURES: CONTAIN SPILL. ABSORB. SWEEP-UP. DISPOSE. FLUSH AREA WITH WATER TO CHEMICAL SEWER. AVOID BREATHING DUST.

WASTE AND DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

HANDLING AND STORING PRECAUTIONS: WASH HANDS THOROUGHLY AFTER HANDLING TO REMOVE ALL RESIDUE. STORE FLUX UNDER AMBIENT CONDITIONS.

OTHER PRECAUTIONS: REMOVE AND PROFESSIONALLY WASH CONTAMINATED CLOTHING BEFORE REUSE.

### SECTION 8

### CONTROL MEASURES

RESPIRATORY MEASURES: IF THE WORK STATION IS NOT VENTILATED TO REMOVE ALL DUSTS AND FUMES, USE A NIOSH APPROVED MASK.

VENTILATION: MAINTAIN AIR FLOW AWAY FROM USER TO EXHAUST ALL DUST AND FUMES, SO THAT THE TLV IS NEVER EXCEEDED.

PROTECTIVE GLOVES: CHEMICAL IMPERVIOUS.

EYE PROTECTION: CHEMICAL SAFETY GOGGLES

OTHER PROTECTIVE EQUIPMENT: FULL PROTECTION EQUIPMENT AS IS USED IN BRAZING/WELDING OPERATIONS, SO AS TO PREVENT ANY CONTACT.

WORK/HYGIENIC PRACTICES: FOR MAXIMUM SAFETY: BE CERTIFIED FOR, AND WEAR A RESPIRATOR AT ALL TIMES WHEN WELDING AND OR BRAZING.

### SECTION 9

### DISCLAIMER

THIS DATA IS BELIEVED TO BE ACCURATE. HARRIS WEL

### SECTION 10

### ADDITIONAL INFORMATION

TLV AND SOURCE REFERENCES: 16.98 MG/M3 PER TLV FOR MIXTURES IN ACCORDANCE WITH OSHA PEL: NONE ESTABLISHED. MATERIAL AS AN OSHA NUISANCE DUST, PEL: 10 MG/M3, NA = NOT APPLICABLE

### SECTION 11

### ADDITIONAL INFORMATION

**1. Chemical Product and Company Identification**

Polytek Development Corp., 55 Hilton St., Easton, PA 18042, 610/559-8620

Product Name: **Poly Latex 60 and Poly Latex N**

Chemical Family: Natural Rubber Latex, CAS 9006-04-6

**2. Hazardous Constituents**

<u>Hazardous Ingredient/CAS #</u>	<u>Exposure Limits</u>
Natural rubber latex, 9006-04-6	ACGIH 0.0001 mg/m <sup>3</sup> TWA (inhalable proteins)
Ammonium Hydroxide, 1336-21-6	OSHA PEL 50 ppm, 35 mg/m <sup>3</sup> TWA
(Exposure limit for ammonia)	ACGIH 25 ppm TWA, 35 ppm STEL

**3. Health Hazards**

PRIMARY ROUTE(S) OF ENTRY: Inhalation, skin and eye contact

EYE: May cause eye irritation.

SKIN: May cause irritation, redness or rashes, especially in allergic individuals.

INGESTION: May cause gastrointestinal discomfort. Ingestion hazard is not fully known.

INHALATION: Ammonia vapors that may collect at the top of sealed containers may cause respiratory irritation. Inhalation of latex proteins can cause asthma-like symptoms in allergic individuals.

CARCINOGENICITY: Not designated as a carcinogen by NTP, IARC, or OSHA.

NOTE: Certain individuals have latex allergies that can exacerbate skin and respiratory irritation.

**4. First Aid Measures**

EYE CONTACT: Flush with water for at least 15 minutes. See a physician if irritation persists.

SKIN CONTACT: Wash thoroughly with soap and warm water. See a physician if symptoms persist.

INHALATION: Remove to fresh air. See a physician if symptoms persist.

INGESTION: Drink large amounts of water. Seek medical attention. Do not induce vomiting unless so directed by a medical professional.

**5. Fire Fighting Measures**

FLASH POINT: Not determined; but not regulated as an OSHA flammable or combustible liquid.

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, or foam.

HAZARDOUS COMBUSTION PRODUCTS: May include carbon monoxide, carbon dioxide and potentially irritating and toxic compounds.

OTHER INFORMATION: Firefighters wear full protective gear including self-contained breathing apparatus.

**6. Accidental Release Measures**

Clear non-emergency personnel from the area. Extinguish sources of ignition. Contain spill to minimize environmental contamination. Absorb spilled material with an inert absorbent material such as sawdust, vermiculite, dirt, sand, clay, or cob grit. Collect and containerize material.

**7. Handling and Storage**

HANDLING: Use in adequately ventilated area. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke in work area. Wash hands after handling. See also Section 8 of MSDS.

STORAGE: Store in a cool, dry area. Store in original, closed container. Protect from freezing.

**8. Exposure Controls/Personal Protection**

ENGINEERING CONTROLS: Provide adequate general and/or local exhaust to minimize ammonia vapors.

PERSONAL PROTECTIVE EQUIPMENT: Eye protection and impervious gloves are recommended.

RESPIRATORY PROTECTION: In the absence of good ventilation, use an air-purifying respirator equipped with ammonia cartridges.

**9. Physical Characteristics**

APPEARANCE: Off-white opaque liquid

ODOR: Ammonia-like

pH: 10-11

FREEZING POINT: 32 °F

BOILING POINT: >200 °F

VAPOR PRESSURE: Not determined

SOLUBILITY IN WATER: Appreciable (10-99%)

SPECIFIC GRAVITY: ~1.0 @ 20°C

**10. Stability and Reactivity**

CONDITIONS TO AVOID: Normally stable, but avoid excessive temperatures to ensure product integrity. Protect from freezing.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers and acids

HAZARDOUS DECOMPOSITION PRODUCTS: May include carbon monoxide, carbon dioxide and potentially irritating and toxic compounds.

**11. Regulatory and Other Information**

COMMUNITY RIGHT-TO-KNOW: This product does not contain any compounds above the de minimis reporting levels subject to SARA Section 313 reporting requirements.

DISPOSAL: Upon disposal, this product is not a listed or characteristic RCRA hazardous waste as defined in 40 CFR 261. Dispose of in accordance with state and local regulations.

TRANSPORT: Not a hazardous material for shipping purposes based on *United Nations Recommendations for the Transport of Dangerous Goods* and 49 CFR Part 171.

HMIS CLASSIFICATION: Health – 2\*, Flammability - 0, Reactivity - 0

EMERGENCY SHIPPING INFORMATION: Call CHEMTREC, 800/424-9300.

MSDS INDICATOR: Minor changes to Section 2.

DISCLAIMER: The information contained herein is considered accurate; however, Polytek makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.

**MSDS - Material Safety Data Sheet****Product Name: LIQUID WRENCH UNIVERSAL CHAIN LUBE (POUR)****MSDS No.: L704****I. Basic Information:****Manufacturer:** RADIATOR SPECIALTY COMPANY**Address:** 600 RADIATOR ROAD**City, ST Zip:** INDIAN TRAIL, NC 28079**Country:** USA**Contact:** Robert Geer**Information Telephone Number:** 704-684--181 1**Emergency Contact:** RMPDC (877-740-5015)**Emergency Telephone Number:** 303-623-5716**Emergency Restrictions:****Product Name:** LIQUID WRENCH UNIVERSAL CHAIN LUBE (POUR)**MSDS No.:** L704**Issue Date:** 01/24/2013**Supersedes Date:** 03/11/2010**II. Hazards Identification:****EMERGENCY OVERVIEW**

Danger: Combustible, Harmful for fatal if swallowed, Eye and Skin Irritant,

**OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Potential Health Effects****Route(s) of Entry:**

Eyes, skin, inhalation, ingestion

**Health Hazards (Acute and Chronic):**

See signs and symptoms below

**Signs and Symptoms:**

Eye Irritant. Skin irritation, defatting and dermatitis on prolonged exposure.

Vapors harmful. May cause irritation to lungs, narcosis effects.

Harmful if swallowed.

**Medical Conditions Generally Aggravated by Exposure:**

None known

**Other Health Warnings:**

Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

**Potential Environmental Effects**

Not Available

**III. Composition/Information on Ingredients:**

Chemical Name	CAS No.	% Range	Trade Secret
1,2,4-Trimethylbenzene	95-63-6	3.0 - 7.0	
Aliphatic Hydrocarbon Solvent	8052-41-3	40.0 - 70.0	
Butene, homopolymer	9003-29-6	10.0 - 30.0	
Ethylbenzene	100-41-4	0.1 - 1.0	
Ethylene/Propylene Co-Polymer	9010-79-1	1.0 - 5.0	
Isopropylbenzene	98-82-8	1.0 - 5.0	
Molybdenum, bis carbamodithioate oxo thioxo complexes	906665-74-5	0.1 - 1.0	
Naphthalene	91-20-3	0.1 - 1.0	
Naphthenic Petroleum Distillate	64742-52-5	0.1 - 1.0	
Petroleum Oil	64742-65-0	10.0 - 30.0	
Trimethyl benzene	25551-13-7	5.0 - 10.0	

## ***MSDS - Material Safety Data Sheet***

***Product Name: LIQUID WRENCH UNIVERSAL CHAIN LUBE (POUR)***

***MSDS No.: L704***

Zinc Compound

19210-06-1

<0.1

### ***IV. First Aid Measures:***

#### **Emergency and First Aid Procedures:**

Eye Contact: Flush eyes with clean water for 15 minutes while lifting eyelids and get prompt medical attention.

Skin Contact: Wash with soap and water thoroughly. If adverse effects persist, get prompt medical attention. Launder contaminated clothing before reuse.

Inhalation: Remove to fresh air. If breathing becomes difficult get prompt medical attention.

Ingestion: DO NOT INDUCE VOMITING! Call Poison Control Center, physician, or hospital emergency room immediately.

#### **Note to Physicians:**

N/D

### ***V. Fire Fighting Measures:***

#### **Suitable Extinguishing Media:**

Water Fog, Foam, Carbon Dioxide, Dry Chemical

#### **Unsuitable Extinguishing Media:**

Do not use forced water stream as this could cause the fire to spread.

#### **Products of Combustion:**

Normal products of combustion: Carbon dioxide, carbon monoxide, smoke, nitrogen and sulfur oxides

#### **Protection of Firefighters:**

Wear self-contained positive pressure breathing apparatus and protective clothes. Use shield to protect from rupturing and venting containers. At elevated temperatures containers may vent, rupture or burst, even violently

### ***VI. Accidental Release Measures:***

#### **Personal Precautions:**

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

#### **Environmental Precautions:**

Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred. Run off to sewer may create fire or explosion hazard.

#### **Methods for Containment:**

Dike or contain spill and absorb with inert materials (sand, sawdust, absorbent sweeping compounds, rags, etc).

#### **Methods for Cleanup:**

Using a non-metallic scoop, place contaminated material into an approved chemical waste container. Where possible, vacuum spilled liquid using an explosion proof vacuum to recover material.

#### **Other Information:**

All equipment used with handling the concentrate must be grounded. If run-off occurs, notify proper authorities as required that a spill has occurred.

### ***VII. Handling and Storage:***

#### **Handling Precautions:**

Handling: Use with adequate ventilation and proper protective equipment.

Do not use near fire, sparks, or flame. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS!

#### **Storage Precautions:**

Store in cool, well ventilated area below 120°F away from heat sources.

### ***VIII. Exposure Controls/Personal Protection:***

# ***MSDS - Material Safety Data Sheet***

**Product Name: LIQUID WRENCH UNIVERAL CHAIN LUBE (POUR)**

**MSDS No.: L704**

<b>Chemical Name</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>	<b>Other Limits</b>
Aliphatic Hydrocarbon Solvent	100 ppm	100 ppm	Not Available
Ethylene/Propylene Co-Polymer	N/E	N/E	Not Available
1,2,4-Trimethylbenzene	N/E	25 ppm	Not Available
Ethylbenzene	100 ppm	100 ppm	Not Available
Petroleum Oil	5 mg/m3	5 mg/m3	Not Available
Zinc Compound	N/E	N/E	Not Available
Butene, homopolymer	N/E	N/E	Not Available
Naphthenic Petroleum Distillate	5 mg/m3	5 mg/m3	Not Available
Molybdenum, bis carbamodithioate oxo thioxo complexes	5 mg/m3	10 mg/m3	Not Available
Trimethyl benzene	25 ppm (TWA)	25 ppm (TWA)	Not Available
Isopropylbenzene	50 ppm	50 ppm	Not Available
Naphthalene	10 ppm	10 ppm	Not Available

## **Engineering Controls:**

See above Section for applicable exposure limits. Use with adequate ventilation. If TLV is exceeded, wear NIOSH approved respirator.

## **Personal Protective Equipment:**

For prolonged exposure wear protective safety glasses, gloves, and apron.

## **IX. Physical and Chemical Properties:**

**Boiling Point:** 315°F

**Boiling Range:** Not Available

**Solubility In Water:** Insoluble

**Flash Point:** 110°F

**Odor Threshold:** Not Available

**Vapor Density (AIR = 1):** N/D

**pH Range:** N/A

**Decomposition Temp:** Not Available

**Lower Explosive Limit:** N/D

**Specific Gravity (H2O = 1):** 0.82

**Other Information:** VOC Content: 54% (Wt)

**Melting Point:** N/A

**Freezing Point:** Not Available

**Evaporation Rate (Butyl Acetate = 1):** N/D

**Flash Point Method:** TCC

**Appearance and Odor:** Hazy bright yellow with petroleum odor

**Vapor Pressure (mm Hg.):** N/D

**Partition Coefficient:** Not Available

**Auto-Ignition Temp:** Not Available

**Upper Explosive Limit:** N/D

## **X. Stability and Reactivity:**

### **Stability:**

Stable

### **Conditions to Avoid:**

See Incompatible Materials below.

### **Incompatible Materials:**

Oxidizing agents and acids.

### **Hazardous Decomposition Products:**

Normal products of combustion: Carbon dioxide, carbon monoxide, smoke, nitrogen and sulfur oxides

### **Possibility of Hazardous Reactions:**

Will not occur

**MSDS - Material Safety Data Sheet****Product Name: LIQUID WRENCH UNIVERAL CHAIN LUBE (POUR)****MSDS No.: L704****XI. Toxicological Information:**

N/D

**XII. Ecological Information:**

N/D

**XIII. Disposal Considerations:**

DISPOSAL: This container may be recycled in a recycling centers when empty. Before offering for recycling, empty the can or bottle by using the product according to the label. If recycling is not available, wrap the empty container and discard in the trash. Do not dump into sewers, on the ground, or into any body of water. Dispose of unused product in accordance with all local, state government and federal laws and regulations

**XIV. Transport Information:****Shipping Name:** Petroleum Products, n.o.s. (Aliphatic Petroleum Distillate)**DOT Hazard Class:** Class 3**DOT Subsidiary Hazard Class:** Not Available**UN/NA#:** UN1268**Packing Group:** III**Transportation Information:**

DOT Hazard Class: ORM-D

Shipping Name: Consumer Commodity

The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for international and air shipping purposes.

ICAO/IATA (US)

Shipping Name: Petroleum Products, n.o.s. (Aliphatic Petroleum Distillate)

Class: 3

Packaging Group: III

UN number: UN1268

International:

ICAO/IATA

UN number: UN1268

Shipping Name: Petroleum Products, n.o.s. (Aliphatic Petroleum Distillate)

Class: 3

Packaging Group: III

IMDG

UN number: UN1268

Shipping Name: Petroleum Products, n.o.s. (Aliphatic Petroleum Distillate)

Class: 3

Packaging Group: III

EmS: F-E, S-E

**XV. Regulatory Information:**

# MSDS - Material Safety Data Sheet

**Product Name: LIQUID WRENCH UNIVERAL CHAIN LUBE (POUR)**

**MSDS No.: L704**

SARA 313 Reportable Chemicals:

1,2,4-Trimethylbenzene (95-63-6)

Ethylbenzene (100-41-4)

Isopropylbenzene (98-82-8)

Zinc Dithiophosphate (19210-06-1)

Naphthalene (91-20-3)

USA TSCA: All components of this material are listed on the US TSCA Inventory.

Warning: This product contains a chemical(s) known to the State of California to cause cancer or birth defects or other reproductive harm.

State RTK Chemicals:

Ethylbenzene (100-41-4)

1,2,4-Trimethylbenzene (95-63-6)

Isopropylbenzene (98-82-8)

Aliphatic Hydrocarbon Solvent (8052-41-3)

Trimethylbenzene (25551-13-7)

Naphthalene (91-20-3)

## **XVI. Other Information:**

**Chemical State:** ☒ Liquid ☐ Gas ☐ Solid

**Chemical Type:** ☐ Pure ☒ Mixture

**Hazard Category:**

☒ Acute ☒ Chronic ☒ Fire ☐ Pressure ☐ Reactive



### **Additional Manufacturer Warnings:**

Do not used in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS!

N/E: Not Established

N/D: Not Determined

N/A: Not Applicable

N/AV: Not Available

### **Additional Product Information:**

While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data and we expressly disclaim all liability for reliance thereon. The data is offered solely for information, investigation, and verification. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this MSDS. The user is responsible for full compliance.

1	Health
2	Flammability
0	Physical Hazard
C	Pers. Protection



**MSDS - Material Safety Data Sheet****Product Name: LIQUID WRENCH LUBRICATING OIL (UPC: 078698120256)****MSDS No.: L212****I. Basic Information:****Manufacturer:** RADIATOR SPECIALTY COMPANY**Address:** 600 RADIATOR ROAD**City, ST Zip:** INDIAN TRAIL, NC 28079**Country:** USA**Contact:** Robert Geer**Information Telephone Number:** 704-684-1811**Emergency Contact:** RMPDC (877-740-5015)**Emergency Telephone Number:** 303-623-5716**Emergency Restrictions:****Product Name:** LIQUID WRENCH LUBRICATING OIL (UPC: 078698120256)**MSDS No.:** L212**Issue Date:** 10/21/2013**Supersedes Date:** 01/22/2013**II. Hazards Identification:****EMERGENCY OVERVIEW**

Danger: Flammable. Harmful or fatal if swallowed. Eye and skin irritant. Contents under pressure.

Level 3 Aerosol

**OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Potential Health Effects****Route(s) of Entry:**

Absorption, Inhalation, and Ingestion.

**Health Hazards (Acute and Chronic):**

See signs and symptoms below.

**Signs and Symptoms:**

Eye Contact: Irritant. Prolonged contact may cause conjunctivitis.

Skin Contact: Irritant. Defatting of tissue, dermatitis may occur.

Inhalation: Irritant to mucous membranes. Repeated exposure may cause narcosis, dizziness, respiratory or lung irritation.

Ingestion: HARMFUL OR FATAL IF SWALLOWED. May cause burns to mouth, throat &amp; stomach.

**Medical Conditions Generally Aggravated by Exposure:**

None Known

**Other Health Warnings:**

Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

**Potential Environmental Effects**

Not Available

**III. Composition/Information on Ingredients:**

Chemical Name	CAS No.	% Range	Trade Secret
1,2,4-Trimethylbenzene	95-63-6	1.0 - 5.0	
2-Butoxyethoxy-2-ethanol	112-34-5	10.0 - 30.0	
Aliphatic Hydrocarbon - Non Exempt.	8052-41-3	10.0 - 30.0	
Carbon dioxide	124-38-9	1.0 - 5.0	
Corrosion Inhibitor	Proprietary	1.0 - 5.0	
Ethylbenzene	100-41-4	> 0.05	
Hydrocarbon Fluid	64742-47-8	10.0 - 30.0	
Isopropylbenzene	98-82-8	0.1 - 1.0	
Naphthenic Petroleum Distillate	64742-52-5	30.0 - 60.0	

**IV. First Aid Measures:****Emergency and First Aid Procedures:**

Eye Contact: Flush eyes with clean water for 20 minutes while lifting eyelids. Get prompt medical attention.

Skin Contact: Wash skin with soap and water thoroughly. If adverse effects persist, get prompt medical attention. Remove and isolate contaminated clothing. Launder contaminated clothing before reuse.

Inhalation: Move victim to fresh air. If breathing becomes difficult, administer oxygen and get prompt medical attention. If breathing stops, give artificial respiration and get prompt medical attention.

Ingestion: DO NOT INDUCE VOMITING! Call Poison Control Center, physician, or hospital emergency room immediately. Aspiration of vomitus into the lungs can cause pneumonitis, which can be fatal.

**Note to Physicians:**

N/E

**V. Fire Fighting Measures:****Suitable Extinguishing Media:**

Water Fog, Foam, Carbon Dioxide, Dry Chemical

**Unsuitable Extinguishing Media:**

Do not use forced water stream as this could cause the fire to spread.

**Products of Combustion:**

Normal products of combustion, smoke, carbon dioxide, carbon monoxide, and sulfur trioxides.

**Protection of Firefighters:**

Wear self-contained positive pressure breathing apparatus and protective clothes. Use shield to protect from rupturing and venting containers. At elevated temperatures containers may vent, rupture or burst, even violently

**VI. Accidental Release Measures:****Personal Precautions:**

Eliminate all ignition sources. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

**Environmental Precautions:**

Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred. Run off to sewer may create fire or explosion hazard.

**Methods for Containment:**

Dike or contain spill and absorb with inert materials (sand, sawdust, absorbent sweeping compounds, rags, etc).

**Methods for Cleanup:**

Using a non-metallic scoop, place contaminated material into an approved chemical waste container. Where possible, vacuum spilled liquid using an explosion proof vacuum to recover material.

**Other Information:**

All equipment used with handling the concentrate must be grounded. If run-off occurs, notify proper authorities as required that a spill has occurred.

**VII. Handling and Storage:****Handling Precautions:**

Use with adequate ventilation and proper protective equipment.

Do not use or store near fire, sparks, or open flame. Do not puncture or incinerate container. Exposure to temperatures above 120° may cause container to vent, rupture, or burst.

**Storage Precautions:**

Store in cool, well ventilated area below 120°F away from heat, fire, sparks or flame.

**VIII. Exposure Controls/Personal Protection:**

**MSDS - Material Safety Data Sheet****Product Name: LIQUID WRENCH LUBRICATING OIL (UPC: 078698120256)****MSDS No.: L212**

Chemical Name	OSHA PEL	ACGIH TLV	Other Limits
Aliphatic Hydrocarbon - Non Exempt.	100 ppm	100 ppm	Not Available
Carbon dioxide	N/AV	5000 ppm	Not Available
1,2,4-Trimethylbenzene	N/E	25 ppm	Not Available
Naphthenic Petroleum Distillate	5 mg/m3	5 mg/m3	Not Available
Trimethyl benzene	25 ppm (TWA)	25 ppm (TWA)	Not Available
Isopropylbenzene	50 ppm	50 ppm	Not Available
2-Butoxyethoxy-2-ethanol	N/E	N/E	35 ppm
Ethylbenzene	100 ppm	100 ppm	Not Available
Corrosion Inhibitor	N/E	N/E	Not Available
Hydrocarbon Fluid	5 mg/m3	5 mg/m3	Not Available

**Engineering Controls:**

See above Section for applicable exposure limits. If TLV is exceeded, wear NIOSH approved respirator.

**Personal Protective Equipment:**

Use with adequate ventilation For prolonged exposure wear protective safety glasses, gloves, and apron.

**IX. Physical and Chemical Properties:****Boiling Point:** 320 F**Boiling Range:** N/D**Solubility In Water:** Insoluble**Flash Point:** 132F**Odor Threshold:** N/D**Vapor Density (AIR = 1):** N/D**pH Range:** N/A**Decomposition Temp:** N/D**Lower Explosive Limit:** 0.7%**Specific Gravity (H2O = 1):** 0.86**Other Information:** VOC Content: 23.5 %

Refractive Index: 1.4650

**Melting Point:** N/A**Freezing Point:** N/D**Evaporation Rate (Butyl Acetate = 1):** N/A**Flash Point Method:** TCC**Appearance and Odor:** Opaque light yellow with sweet vanilla odor**Vapor Pressure (mm Hg.):** N/D**Partition Coefficient:** N/D**Auto-Ignition Temp:** N/D**Upper Explosive Limit:** 5%**X. Stability and Reactivity:****Stability:**

Product is stable

**Conditions to Avoid:**

Avoid heat, sparks, and flames. Avoid incompatible materials.

**Incompatible Materials:**

Avoid contact with strong oxidizers

**Hazardous Decomposition Products:**

Normal products of combustion, smoke, carbon dioxide, carbon monoxide, and sulfur trioxides.

**Possibility of Hazardous Reactions:**

Will not occur

**XI. Toxicological Information:**

N/D

**XII. Ecological Information:**

N/D

**XIII. Disposal Considerations:**

DISPOSAL: This container may be recycled in aerosol recycling centers when empty. Before offering for recycling, empty the can by using the product according to the label. DO NOT PUNCTURE! If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with all local, state government and federal laws and regulations.

**XIV. Transport Information:**

Shipping Name: Consumer Commodity

DOT Hazard Class: ORM-D

UN/NA#: 1950

DOT Subsidiary Hazard Class: Not Available

Packing Group: Not Available

**Transportation Information:**

DOT Hazard Class: ORM-D

Shipping Name: Consumer Commodity

The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for international and air shipping purposes.

ICAO/IATA (US)

Shipping Name: Aerosols

Class: 2.1

UN number: UN1950

International:

ICAO/IATA

UN number: UN1950

Shipping Name: Aerosols

Class: 2.1

IMDG

UN number: UN1950

Shipping Name: Aerosols

Class: 2.1

EmS: F-D, S-U

**XV. Regulatory Information:**

**MSDS - Material Safety Data Sheet****Product Name: LIQUID WRENCH LUBRICATING OIL (UPC: 078698120256)****MSDS No.: L212**

SARA Reportable Chemicals.

Aliphatic Hydrocarbon (8052-41-3)

2 Butoxyethoxy-2-ethanol (112-34-5)

1,2,4-Trimethylbenzene (95-63-6)

Isopropylbenzene (98-82-8)

Ethylbenzene (100-41-4)

USA TSCA: All components of this material are either exempt or listed on the US TSCA Inventory.

Warning: This product contains a chemical(s) known to the State of California to cause cancer or birth defects or other reproductive harm.

State RTK Chemicals:

Aliphatic Hydrocarbon (8052-41-3)

2 Butoxyethoxy-2-ethanol (112-34-5)

1,2,4-Trimethylbenzene (95-63-6)

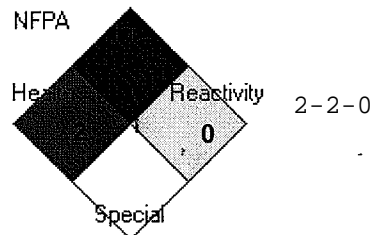
Trimethylbenzene (25551-13-7)

Ethylbenzene (100-41-4)

Isopropylbenzene (98-82-8)

**XVI. Other Information:**Chemical State: ☒ Liquid ☐ Gas ☐ SolidChemical Type: ☐ Pure ☒ Mixture

Hazard Category:

☒ Acute☐ Chronic☒ Fire☒ Pressure☐ Reactive

2-2-0

**Additional Manufacturer Warnings:**

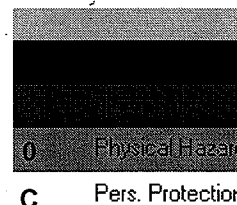
Do not used in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS!

N/E: Not Established

N/D: Not Determined

N/A: Not Applicable

N/AV: Not Available



2-2-0

C Pers. Protection

**Additional Product Information:**

While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data and we expressly disclaim all liability for reliance thereon. The data is offered solely for information, investigation, and verification. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this MSDS. The user is responsible for full compliance.





## **LUBRIMATIC E-Z 2 CYCLE OIL** **CODE 11524, 11555**

**Color: Blue + Blue Green**

**Brief product description:** LUBRIMATIC EZ 2-CYCLE OIL is a high quality oil recommended for heavy-duty, air-cooled, two-cycle engines in all applications, which do not specify NMMA TCW-3®, TC-W, or TC-WII. It is formulated using high viscosity index paraffinic base oils and a combination of additives to perform in high temperature environment of two-cycle, air-cooled engines. It meets the performance requirements for API service TC/JASO FB. It is also suitable for TA, TB, and TC services.

**LUBRIMATIC EZ 2 CYCLE OIL** is specially developed for use in motorcycles, chainsaws, lawnmowers, air blowers string trimmers, and other equipment. It provides easy mixing and stable mixtures with gasoline, event at low temperatures. **It is suitable for use in lawn and garden equipment manufactured by Snapper, Lawn Boy, Toro, Homelite/Jacobsen, Briggs & Stratton, Murray, Stihl, Poulan, Echo, Sachs-Dolmar, McCulloh, Pioneer, Jonsered, and Tanka.** Because of its special formulation, it is generally not compatible with NMMA TCW-3®, TC-WII, or TC-W oils. Consult your Lubrication Recommendation Guide for further information on specific application.

**Description:** E-Z 2 cycle oil is designed for use in heavy-duty, air-cooled, two stroke gasoline engines from 16:1 to 50:1 gas/oil ratios. E-Z 2 cycle oil is an ashless, multifunctional package that reduces pre-ignition and plug fouling tendencies while reducing combustion chamber and piston deposits and protects against rust. It is fully qualified as two-stroke-cycle gasoline lubricant service designation tc.

This product is diluted with just enough solvent to promote easy mixing gasoline but maintain high flash points.

<b><u>Test</u></b>	<b><u>Typical Results</u></b>
Gravity, API	30.2
Pounds Per Gallon	7.1
Flash Point, °F (COC)	166°F
Viscosity, CST @ 40°C	67
Pour Point, °C	-21

**Date: November 15, 2011**

MSDS Sheet 7605

MSDS 7605

7585: Air Tool Oil 4 Oz Bottle

7605: Air Tool Oil Quart

MSDS Last updated: 10/10/2005

June 9, 2005

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

-----  
PRODUCT NAME: Marvel Air Tool Oil  
PRODUCT CODE: MM080, MM085, MM85R, MM086, MM088R  
MM089 MM  
CHEMICAL FAMILY: Petroleum Distillates  
CHEMICAL NAME: Complex Mixture of Hydrocarbons  
FORMULA: Mixture  
MANUFACTURER: EMERGENCY TELEPHONE NUMBERS  
Marvel Oil Company, Inc. Transportation;  
5655 W. 73rd Street CHEM-TREC: 800-424-9300  
Chicago, IL 60638 Medical:  
Phone: 708-563-3766 ROCKY MTN POISON CTR; 800-332-3073  
Fax: 708-563-3715

2. POSITION/INFORMATION ON INGREDIENTS

-----  
COMPOUND CAS NUMBER CONCENTRATION (wt %)  
Naphthenic Hydrocarbons 64742-52-5 70 - 80  
Mineral Spirits 08052-41-3 20 - 30  
Chlorinated Hydrocarbons 00095-50-1 0 - 1

EXPOSURE LIMITS 8 hr. TWA (ppm)

	OSHA PEL	ACGIH TLV
Naphthenic Hydrocarbons	5 as oil mist	5 as oil mist
Mineral Spirits	100	100
Chlorinated Hydrocarbons	25	25

3. HAZARDS IDENTIFICATION

-----  
POTENTIAL HEALTH EFFECTS

INHALATION; Can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and even asphyxiation.

INGESTION; Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration into lungs can cause pneumonitis which can be fatal.

SKIN CONTACT: Prolonged or repeated contact can cause moderated irritation, defatting or dermatitis.

EYE CONTACT; Can cause severe irritation, redness, tearing or blurred vision.

4. FIRST AID MEASURES;



-----  
EYE; Flush with large amounts of water, lifting upper and lower eyelids occasionally. Get medical attention.

SKIN; Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder before re-use.

INHALATION; Remove person to fresh air. If breathing difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm and quiet. Call a physician.

INGESTION; Do not induce vomiting. Keep person quiet and warm. Get medical attention. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.

#### 5. FIRE FIGHTING MEASURES;

-----  
FLASH POINT: 128 F (53 C) TCC

EXTINGUISHING MEDIA; Carbon dioxide, dry chemical, foam.

SPECIAL FIRE FIGHTING PROCEDURES; Wear self-contained breathing apparatus with full face piece operated with positive pressure-demand when fighting large fires.

#### 6. ACCIDENTAL RELEASE MEASURES

-----  
SPILL OR LEAK PROCEDURES: Ventilate area. Remove sources of ignition. Prevent entry into sewers and waterways. Pick up free liquid for recycle and/or disposal. Absorb small amounts on inert material for disposal.

#### 7. HANDLING AND STORAGE;

-----  
STORAGE TEMPERATURE (MIN./MAX.): -40 F (-40 C) / 120 F (49 C)

SHELF LIFE; 3 years minimum when the original container is kept tightly closed and properly stored.

SPECIAL SENSITIVITY; None

HANDLING AND STORAGE PRECAUTIONS; Empty containers may be dangerous since fumes may still exist. Observe precautions given for this product as stated in this document.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION;

-----  
EYE PROTECTION REQUIREMENTS; Splash goggles.

SKIN PROTECTION REQUIREMENTS; Wear chemically resistant gloves.

RESPIRATOR/VENTILATION REQUIREMENTS; Provide sufficient ventilation to avoid exposure levels above the establish TLV's.

EXPOSURE LIMITS; Not established for product as whole.

Mineral Spirits

NIOSH

100 ppm TWA

Oil Mist

OSHA

5 mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES;

-----  
PHYSICAL FORM; Thin liquid  
COLOR: Red  
ODOR; Petroleum  
BOILING POINT: Not determined  
MELT/FREEZE POINT: -60 F (-51 C)  
PH: Not applicable  
SOLUBILITY IN WATER: Insoluble  
SPECIFIC GRAVITY: 0.876 @ 60 F (15.6 C)  
% VOLATILE BY WEIGHT: 25 %  
VAPOR PRESSURE: Not determined  
VAPOR DENSITY: Not determined

10. REACTIVITY:

-----  
STABILITY: Stable  
HAZARDOUS POLYMERIZATION; Will not occur.  
INCOMPATIBILITIES; Strong oxidizing agents.  
DECOMPOSITION PRODUCTS; Carbon monoxide, carbon dioxide and hydrocarbons.

11. TOXICOLOGICAL INFORMATION;

-----  
ACUTE INHALATION; Aspiration into lungs can cause pneumonitis which can be fatal.  
CHRONIC INHALATION; Not determined.  
ACUTE SKIN CONTACT: Prolonged or repeated contact can cause moderate irritation, defatting or dermatitis.  
  
CHRONIC SKIN CONTACT; Not determined.  
ACUTE EYE CONTACT: Can cause severe irritation, redness, tearing or blurred vision.

12. ECOLOGICAL INFORMATION;

-----  
No data available.

13. DISPOSAL CONSIDERATION;

-----  
Ignitable hazardous waste, EPA Hazardous Waste Number D001  
WASTE DISPOSAL METHOD: Dispose of product in accordance with all local, state and federal laws and regulations.

14. TRANSPORT INFORMATION

-----  
DOT INFORMATION;  
PROPER SHIPPING NAME: Non Bulk Not regulated  
Bulk Petroleum distillates,  
n.o.s.  
  
TECHNICAL SHIPPING NAME: Fuel and oil additive  
  
HAZARD CLASS: Non Bulk ORM-D  
Bulk Class 3

UN NUMBER:		UN 1268
PRODUCT RQ (lbs):		None
LABEL:	Non Bulk Bulk	ORM-D Flammable Liquid
PLACARD:	Non Bulk Bulk	None Flammable Liquid
FREIGHT CLASS BULK;		PG III
FREIGHT CLASS PACKAGE;		None
PRODUCT LABEL:		None

15. REGULATORY INFORMATION;

-----  
TSCA STATUS; All ingredients listed.

CERCLA REPORTABLE QUANTITY; None

SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES	None
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SECTION 311/312  
HAZARD CATEGORIES

Acute Health	Yes
Chronic Health	Yes
Fire	Yes
Reactive	No
Sudden Release of Pressure	No

SECTION 313

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Ortho-dichlorobenzene	00095-50-1	0-0.25 %

RCRA STATUS: If discarded in its purchased form, this product would be an ignitable waste with an EPA Hazardous Waste Number of D001. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product should be classified as a hazardous waste. (40CFR261.20-24)

CANADIAN STATUS; All materials contained in this product are listed on the Canadian Domestic Substances List.

EUROPEAN UNION; All materials contained in this product are listed on EINECS.

STATE REGULATORY INFORMATION

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT/ CAS NUMBER	CONCENTRATION	STATE CODE
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# MATERIAL SAFETY DATA SHEET

2718  
11 00

DATE OF PREPARATION  
Jul 19, 2014

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

2718

### PRODUCT NAME

MINWAX® WOOD FINISH®, Ebony

### MANUFACTURER'S NAME

MINWAX Company  
10 Mountainview Road  
Upper Saddle River, NJ 07458

### Telephone Numbers and Websites

Product Information	(800) 523-9299 www.minwax.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
57	64742-88-7	Med. Aliphatic Hydrocarbon Solvent		
		ACGIH TLV	100 PPM	1.27 mm
		OSHA PEL	100 PPM	
16	64742-52-5	Heavy Naphthenic Petroleum Oil		
		ACGIH TLV	5 mg/m3 as Mist	
		OSHA PEL	5 mg/m3 as Mist	
3	14807-96-6	Talc		
		ACGIH TLV	2 mg/m3 as Resp. Dust	
		OSHA PEL	2 mg/m3 as Resp. Dust	
1	1333-86-4	Carbon Black		
		ACGIH TLV	3.5 MG/M3	
		OSHA PEL	3.5 MG/M3	

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.  
EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

**EYES:** Irritation.

**SKIN:** Prolonged or repeated exposure may cause irritation.

**INHALATION:** Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.  
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

### CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

### HMIS Codes

Health	2*
Flammability	2
Reactivity	0

## SECTION 4 — FIRST AID MEASURES

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water.  
Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

## SECTION 5 — FIRE FIGHTING MEASURES

<b>FLASH POINT</b>	<b>LEL</b>	<b>UEL</b>	<b>FLAMMABILITY CLASSIFICATION</b>
105 °F PMCC	1.0	6.0	Combustible, Flash above 99 and below 200 °F

### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

### SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

## SECTION 6 — ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class II

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

To minimize the possibility of spontaneous combustion: control the accumulation of overspray; soak wiping rags and waste immediately after use in a water-filled, closed metal container; air dry filters outside, far from any combustible material and separated by bricks or other non-combustible spacers; dispose of all contaminated materials and waste properly. Consult OSHA 29 CFR 1910.107(b)(5) and NFPA 33, Chapter 8 (8-9) for the proper procedures.

## SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

### PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

### VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

### RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

**PROTECTIVE GLOVES**

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

**EYE PROTECTION**

Wear safety spectacles with unperforated sideshields.

**OTHER PRECAUTIONS**

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

<b>PRODUCT WEIGHT</b>	7.28 lb/gal	872 g/l
<b>SPECIFIC GRAVITY</b>	0.88	
<b>BOILING POINT</b>	300 - 395 °F	148 - 201 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	65%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
4.18 lb/gal	501 g/l	Less Water and Federally Exempt Solvents
4.18 lb/gal	501 g/l	Emitted VOC

## SECTION 10 — STABILITY AND REACTIVITY

**STABILITY — Stable****CONDITIONS TO AVOID**

None known.

**INCOMPATIBILITY**

None known.

**HAZARDOUS DECOMPOSITION PRODUCTS**

By fire: Carbon Dioxide, Carbon Monoxide

**HAZARDOUS POLYMERIZATION**

Will not occur

## SECTION 11 — TOXICOLOGICAL INFORMATION

**CHRONIC HEALTH HAZARDS**

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

**TOXICOLOGY DATA**

<b>CAS No.</b>	<b>Ingredient Name</b>			
<b>64742-88-7</b>	<b>Med. Aliphatic Hydrocarbon Solvent</b>	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
<b>64742-52-5</b>	<b>Heavy Naphthenic Petroleum Oil</b>	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
<b>14807-96-6</b>	<b>Talc</b>	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
<b>1333-86-4</b>	<b>Carbon Black</b>	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

## SECTION 12 — ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL INFORMATION**

No data available.

## SECTION 13 — DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD**

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## SECTION 14 — TRANSPORT INFORMATION

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 (ocean, 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.

### US Ground (DOT)

May be Classed as a Combustible Liquid for U.S. Ground.

UN1263, PAINT, 3, PG III, (ERG#128)

### Bulk Containers may be Shipped as:

UN1263, PAINT, COMBUSTIBLE LIQUID, PG III, (ERG#128)

### Canada (TDG)

May be Classed as a Combustible Liquid for Canadian Ground.

UN1263, PAINT, CLASS 3, PG III, (ERG#128)

### IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.

UN1263, PAINT, CLASS 3, PG III, (41 C c.c.), EmS F-E, S-E

### IATA/ICAO

UN1263, PAINT, 3, PG III

## SECTION 15 — REGULATORY INFORMATION

### SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

### CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

### TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

## SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



# MATERIAL SAFETY DATA SHEET

225  
17 00

DATE OF PREPARATION  
Jul 19, 2014

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

225

### PRODUCT NAME

MINWAX® WOOD FINISH®, Red Mahogany

### MANUFACTURER'S NAME

MINWAX Company  
10 Mountainview Road  
Upper Saddle River, NJ 07458

### Telephone Numbers and Websites

Product Information	(800) 523-9299 www.minwax.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
44	64742-88-7	Med. Aliphatic Hydrocarbon Solvent		
		ACGIH TLV	100 PPM	1.27 mm
		OSHA PEL	100 PPM	
1	64741-65-7	Mineral Spirits (Odorless)		
		ACGIH TLV	100 PPM	1 mm
		OSHA PEL	100 PPM	
11	64742-47-8	Aliphatic Solvent		
		ACGIH TLV	Not Available	0.1 mm
		OSHA PEL	Not Available	
12	64742-52-5	Heavy Naphthenic Petroleum Oil		
		ACGIH TLV	5 mg/m3 as Mist	
		OSHA PEL	5 mg/m3 as Mist	
0.2	1333-86-4	Carbon Black		
		ACGIH TLV	3.5 MG/M3	
		OSHA PEL	3.5 MG/M3	

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.  
EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

**EYES:** Irritation.

**SKIN:** Prolonged or repeated exposure may cause irritation.

**INHALATION:** Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.  
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

### CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

### HMIS Codes

Health	2*
Flammability	2
Reactivity	0

## SECTION 4 — FIRST AID MEASURES

- EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.
- SKIN:** Wash affected area thoroughly with soap and water.  
Remove contaminated clothing and launder before re-use.
- INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.
- INGESTION:** Do not induce vomiting. Get medical attention immediately.

## SECTION 5 — FIRE FIGHTING MEASURES

- |                                   |                   |                   |  |
|-----------------------------------|-------------------|-------------------|--|
| <b>FLASH POINT</b><br>105 °F PMCC | <b>LEL</b><br>1.0 | <b>UEL</b><br>8.8 | <b>FLAMMABILITY CLASSIFICATION</b><br>Combustible, Flash above 99 and below 200 °F |
|-----------------------------------|-------------------|-------------------|--|
- EXTINGUISHING MEDIA**  
Carbon Dioxide, Dry Chemical, Foam
- UNUSUAL FIRE AND EXPLOSION HAZARDS**  
Closed containers may explode when exposed to extreme heat.  
Application to hot surfaces requires special precautions.  
During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.
- SPECIAL FIRE FIGHTING PROCEDURES**  
Full protective equipment including self-contained breathing apparatus should be used.  
Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

## SECTION 6 — ACCIDENTAL RELEASE MEASURES

- STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**  
Remove all sources of ignition. Ventilate the area.  
Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

- STORAGE CATEGORY**  
DOL Storage Class II
- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**  
Contents are COMBUSTIBLE. Keep away from heat and open flame.  
Consult NFPA Code. Use approved Bonding and Grounding procedures.  
Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally.  
Keep out of the reach of children.  
To minimize the possibility of spontaneous combustion: control the accumulation of overspray; soak wiping rags and waste immediately after use in a water-filled, closed metal container; air dry filters outside, far from any combustible material and separated by bricks or other non-combustible spacers; dispose of all contaminated materials and waste properly. Consult OSHA 29 CFR 1910.107(b)(5) and NFPA 33, Chapter 8 (8-9) for the proper procedures.

## SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

- PRECAUTIONS TO BE TAKEN IN USE**  
Use only with adequate ventilation.  
Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.  
Wash hands after using.  
This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).  
Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.
- VENTILATION**  
Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.
- RESPIRATORY PROTECTION**  
If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.  
When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

**PROTECTIVE GLOVES**

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

**EYE PROTECTION**

Wear safety spectacles with unperforated sideshields.

**OTHER PRECAUTIONS**

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	7.17 lb/gal	859 g/l
<b>SPECIFIC GRAVITY</b>	0.86	
<b>BOILING POINT</b>	300 - 495 °F	148 - 257 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	64%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
4.20 lb/gal	503 g/l	Less Water and Federally Exempt Solvents
4.20 lb/gal	503 g/l	Emitted VOC

**SECTION 10 — STABILITY AND REACTIVITY****STABILITY — Stable****CONDITIONS TO AVOID**

None known.

**INCOMPATIBILITY**

None known.

**HAZARDOUS DECOMPOSITION PRODUCTS**

By fire: Carbon Dioxide, Carbon Monoxide

**HAZARDOUS POLYMERIZATION**

Will not occur

**SECTION 11 — TOXICOLOGICAL INFORMATION****CHRONIC HEALTH HAZARDS**

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

**TOXICOLOGY DATA**

<b>CAS No.</b>	<b>Ingredient Name</b>			
64742-88-7	<b>Med. Aliphatic Hydrocarbon Solvent</b>	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
64741-65-7	<b>Mineral Spirits (Odorless)</b>	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
64742-47-8	<b>Aliphatic Solvent</b>	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
64742-52-5	<b>Heavy Naphthenic Petroleum Oil</b>	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
1333-86-4	<b>Carbon Black</b>	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

**SECTION 12 — ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL INFORMATION**

No data available.

**SECTION 13 — DISPOSAL CONSIDERATIONS****WASTE DISPOSAL METHOD**

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.  
Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## SECTION 14 — TRANSPORT INFORMATION

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 (ocean, 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.

### US Ground (DOT)

May be Classed as a Combustible Liquid for U.S. Ground.  
UN1263, PAINT, 3, PG III, (ERG#128)

### Bulk Containers may be Shipped as:

UN1263, PAINT, COMBUSTIBLE LIQUID, PG III, (ERG#128)

### Canada (TDG)

May be Classed as a Combustible Liquid for Canadian Ground.  
UN1263, PAINT, CLASS 3, PG III, (ERG#128)

### IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.  
UN1263, PAINT, CLASS 3, PG III, (41 C c.c.), EmS F-E, S-E

### IATA/ICAO

UN1263, PAINT, 3, PG III

## SECTION 15 — REGULATORY INFORMATION

### SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

### CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

### TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

## SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

# MATERIAL SAFETY DATA SHEET

209  
04 00

DATE OF PREPARATION  
Jul 19, 2014

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

209

### PRODUCT NAME

MINWAX® WOOD FINISH®, Natural

### MANUFACTURER'S NAME

MINWAX Company  
10 Mountainview Road  
Upper Saddle River, NJ 07458

### Telephone Numbers and Websites

Product Information	(800) 523-9299 www.minwax.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
60	64742-88-7	Med. Aliphatic Hydrocarbon Solvent		
		ACGIH TLV	100 PPM	1.27 mm
		OSHA PEL	100 PPM	
18	64742-52-5	Heavy Naphthenic Petroleum Oil		
		ACGIH TLV	5 mg/m3 as Mist	
		OSHA PEL	5 mg/m3 as Mist	

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.  
EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

**EYES:** Irritation.

**SKIN:** Prolonged or repeated exposure may cause irritation.

**INHALATION:** Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.  
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

### CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

### HMIS Codes

Health	2
Flammability	2
Reactivity	0

## SECTION 4 — FIRST AID MEASURES

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

## SECTION 5 — FIRE FIGHTING MEASURES

<b>FLASH POINT</b> 101 °F PMCC	<b>LEL</b> 1.0	<b>UEL</b> 6.0	<b>FLAMMABILITY CLASSIFICATION</b> Combustible, Flash above 99 and below 200 °F
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### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

### SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

## SECTION 6 — ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class II

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

To minimize the possibility of spontaneous combustion: control the accumulation of overspray; soak wiping rags and waste immediately after use in a water-filled, closed metal container; air dry filters outside, far from any combustible material and separated by bricks or other non-combustible spacers; dispose of all contaminated materials and waste properly. Consult OSHA 29 CFR 1910.107(b)(5) and NFPA 33, Chapter 8 (8-9) for the proper procedures.

## SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

### PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

### VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

### RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

### PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

### EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

### OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

<b>PRODUCT WEIGHT</b>	7.04 lb/gal	843 g/l
<b>SPECIFIC GRAVITY</b>	0.85	
<b>BOILING POINT</b>	300 - 395 °F	148 - 201 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	65%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
4.21 lb/gal	505 g/l	Less Water and Federally Exempt Solvents
4.21 lb/gal	505 g/l	Emitted VOC

## SECTION 10 — STABILITY AND REACTIVITY

### STABILITY — Stable

### CONDITIONS TO AVOID

None known.

### INCOMPATIBILITY

None known.

### HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

### HAZARDOUS POLYMERIZATION

Will not occur

## SECTION 11 — TOXICOLOGICAL INFORMATION

### CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

### TOXICOLOGY DATA

CAS No.	Ingredient Name			
64742-88-7	Med. Aliphatic Hydrocarbon Solvent			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
64742-52-5	Heavy Naphthenic Petroleum Oil			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

## SECTION 12 — ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

No data available.

## SECTION 13 — DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## SECTION 14 — TRANSPORT INFORMATION

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 (ocean, 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.

### US Ground (DOT)

May be Classed as a Combustible Liquid for U.S. Ground.

UN1263, PAINT, 3, PG III, (ERG#128)

### Bulk Containers may be Shipped as:

UN1263, PAINT, COMBUSTIBLE LIQUID, PG III, (ERG#128)

**Canada (TDG)**

May be Classed as a Combustible Liquid for Canadian Ground.  
UN1263, PAINT, CLASS 3, PG III, (ERG#128)

**IMO**

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.  
UN1263, PAINT, CLASS 3, PG III, (38 C c.c.), EmS F-E, S-E

**IATA/ICAO**

UN1263, PAINT, 3, PG III

## SECTION 15 — REGULATORY INFORMATION

**SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

**CALIFORNIA PROPOSITION 65**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**TSCA CERTIFICATION**

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

## SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



# MATERIAL SAFETY DATA SHEET

78500  
07 00

DATE OF PREPARATION  
Jul 19, 2014

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

78500

### PRODUCT NAME

MINWAX® Paste Finishing Wax, Natural

### MANUFACTURER'S NAME

MINWAX Company  
10 Mountainview Road  
Upper Saddle River, NJ 07458

### Telephone Numbers and Websites

Product Information	(800) 523-9299 www.minwax.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
68	64742-88-7	Med. Aliphatic Hydrocarbon Solvent		
		ACGIH TLV	100 PPM	1.27 mm
		OSHA PEL	100 PPM	

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.  
EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

**EYES:** Irritation.

**SKIN:** Prolonged or repeated exposure may cause irritation.

**INHALATION:** Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.  
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

### CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

### HMIS Codes

Health	2
Flammability	2
Reactivity	0

## SECTION 4 — FIRST AID MEASURES

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

## SECTION 5 — FIRE FIGHTING MEASURES

<b>FLASH POINT</b> 108 °F PMCC	<b>LEL</b> 1.0	<b>UEL</b> 6.0	<b>FLAMMABILITY CLASSIFICATION</b> Combustible, Flash above 99 and below 200 °F
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**EXTINGUISHING MEDIA**

Carbon Dioxide, Dry Chemical, Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Closed containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**SPECIAL FIRE FIGHTING PROCEDURES**

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

**SECTION 6 — ACCIDENTAL RELEASE MEASURES****STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

**SECTION 7 — HANDLING AND STORAGE****STORAGE CATEGORY**

DOL Storage Class II

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally.

Keep out of the reach of children.

**SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION****PRECAUTIONS TO BE TAKEN IN USE**

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

**VENTILATION**

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

**RESPIRATORY PROTECTION**

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

**PROTECTIVE GLOVES**

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

**EYE PROTECTION**

Wear safety spectacles with unperforated sideshields.

**OTHER PRECAUTIONS**

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

<b>PRODUCT WEIGHT</b>	6.80 lb/gal	814 g/l
<b>SPECIFIC GRAVITY</b>	0.82	
<b>BOILING POINT</b>	300 - 395 °F	148 - 201 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	72%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
4.64 lb/gal	556 g/l	Less Water and Federally Exempt Solvents
4.64 lb/gal	556 g/l	Emitted VOC

## SECTION 10 — STABILITY AND REACTIVITY

### STABILITY — Stable

### CONDITIONS TO AVOID

None known.

### INCOMPATIBILITY

None known.

### HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

### HAZARDOUS POLYMERIZATION

Will not occur

## SECTION 11 — TOXICOLOGICAL INFORMATION

### CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

### TOXICOLOGY DATA

CAS No.	Ingredient Name			
64742-88-7	Med. Aliphatic Hydrocarbon Solvent			
	LC50 RAT	4HR		Not Available
	LD50 RAT			Not Available

## SECTION 12 — ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

No data available.

## SECTION 13 — DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## SECTION 14 — TRANSPORT INFORMATION

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 (ocean, 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.

### US Ground (DOT)

UN1325, FLAMMABLE SOLIDS, ORGANIC, N.O.S. (PETROLEUM DISTILLATES),  
4.1, PG II

### Bulk Containers may be Shipped as:

UN1325, FLAMMABLE SOLIDS, ORGANIC, N.O.S. (PETROLEUM DISTILLATES),  
4.1, PG II

### Canada (TDG)

UN1325, FLAMMABLE SOLIDS, ORGANIC, N.O.S. (PETROLEUM DISTILLATES),  
CLASS 4.1, PG II

**IMO**

UN1325, FLAMMABLE SOLIDS, ORGANIC, N.O.S. (PETROLEUM DISTILLATES),  
CLASS 4.1, PG II

**IATA/ICAO**

UN1325, FLAMMABLE SOLIDS, ORGANIC, N.O.S. (PETROLEUM DISTILLATES),  
4.1, PG II

**SECTION 15 — REGULATORY INFORMATION****SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

**CALIFORNIA PROPOSITION 65**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**TSCA CERTIFICATION**

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

**SECTION 16 — OTHER INFORMATION**

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



## MATERIALS SAFETY DATA SHEET

Date Prepared May 26, 2011 3<sup>rd</sup> Edition

FOR CHEMICAL EMERGENCY

**During Business Hours:** (800) 966-3458

**Outside Business Hours:** (800) 420-7186

### 1. IDENTIFICATION OF PRODUCT

**Product Name:** Gorilla Glue®  
**Product Type:** Polyurethane adhesive

**Distributor:** The Gorilla Glue Company  
4550 Red Bank Expressway  
Cincinnati, OH 45227  
Tel: (513) 271-3300  
Fax: (513) 527-3742

### 2. HAZARDS IDENTIFICATION

Harmful by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

**NFPA:** Health – 2, Flammability – 1, Reactivity – 1  
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

**HMIS:** Health – 2\*, Flammability – 1, Reactivity – 1  
0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe \*=Chronic Health Hazard

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	% content
Prepolymer based on aromatic polyisocyanate	67815-87-6	44
4,4'-Diphenylmethane-diisocyanate, isomers and homologues	9016-87-9	56
	101-68-8	
	26447-40-5	

### 4. FIRST AID MEASURES

**Inhalation** If aerosol or vapor is inhaled in high concentrations: Move affected individual to fresh air and keep him warm, let him rest. If there is difficulty in breathing; call a doctor.

**Eye contact** Flush eyes for at least 10 minutes while holding eyelids open. Contact a doctor.

**Skin contact** Remove contaminated clothes immediately, and wash skin with a cleanser based on polyethylene glycol or with plenty of water and soap. Consult a doctor in the event of a skin reaction.

**Ingestion** Product is not intended to be ingested or eaten. If this product is ingested, it may cause gastrointestinal blockage. If ingested, it may cause severe irritation of the gastrointestinal tract, and should be treated symptomatically. Do not induce the patient or animal to vomit. Call a doctor, ambulance or seek veterinarian assistance immediately.

### 5. FIRE FIGHTING MEASURES

**Upper flammable limit (UFL):** Not determined

**Lower flammable limit (LFL):** Not determined

#### General fire hazards

Down-wind personnel must be evacuated. Do not reseal contaminated containers; a chemical reaction generating carbon dioxide gas pressure may occur resulting in rupture of the container. Dense smoke is emitted when product is burned without sufficient oxygen. When using water spray, boil-over may occur when product temperature reaches the boiling point of water, and the reaction forming carbon dioxide will accelerate. MDI vapor and other gases may be generated by thermal decomposition.



## MATERIALS SAFETY DATA SHEET

Date Prepared May 26, 2011 3<sup>rd</sup> Edition

FOR CHEMICAL EMERGENCY

**During Business Hours:** (800) 966-3458

**Outside Business Hours:** (800) 420-7186

### Special hazards in fire

In case of fire, formation of carbon monoxide, carbon dioxide, nitrogen oxide, isocyanate vapor, and traces of hydrogen cyanide is possible.

### Extinguishing Media

Carbon dioxide, dry powder, and foam. In cases of large scale fires, alcohol-resistant foams are preferred. If water is used, it should be used in very large quantities. The reaction between water and isocyanate may be vigorous.

### Required special protective equipment for fire-fighters

Fire fighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Wear full-protective clothing and respiratory protection as required maintaining exposures during clean-up below the applicable exposure limits.

### Environmental precautions

Do not discharge spillage into drains.

### Clean-up procedures

Remove mechanically; cover remainders with wet absorbent material (e. g. sand, earth, sawdust). After approx. 15 min. transfer to waste container and do not seal (evolution of CO<sub>2</sub>). Keep damp in a safe ventilated area for several days.

## 7. HANDLING AND STORAGE

### Handling

Avoid contact with skin and eye. Do not smoke, eat and drink at the work-place.

Ventilation: If vapor or mist is generated during processing or use, local exhaust ventilation should be provided to maintain exposures below the applicable limits.

Personal protection: see Section 8.

### Storage

Keep product away from sources of alcohols, amines, or other materials that react with isocyanates. Avoid prolonged heating above 160°C/320°F. Store the product in tightly closed containers in a well-ventilated place and in accordance with national regulations. Keep out of reach of children and animals.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

For exposure controls see Section 15.

### Component exposure limits

	CAS no.	Type	ppm	mg/m <sup>3</sup>
4,4'-Diphenylmethane diisocyanate	101-68-8	OSHA PEL	0.02	0.2
		ACGIH (TLV-TWA)	0.005	

### Personal protection equipment

**General:** Wear suitable protective clothing, protective gloves and protective goggles/mask.

### Suitable materials for safety gloves:

Natural rubber/natural latex – NR ( $\geq 0.5$  mm)

Polychloroprene – CR ( $\geq 0.5$ mm)

Nitrile rubber – NBR ( $\geq 0.35$ mm)

Butyl rubber – IIR ( $\geq 0.5$  mm)

Fluorinated rubber – FKM ( $\geq 0.4$  mm)



## MATERIALS SAFETY DATA SHEET

Date Prepared May 26, 2011 3<sup>rd</sup> Edition

FOR CHEMICAL EMERGENCY

During Business Hours: (800) 966-3458

Outside Business Hours: (800) 420-7186

### Personal protection equipment (continued)

**Respiratory protection** Required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended.

**Eyes protection** Chemical goggles or full face shields are recommended. An eyewash fountain and safety shower should be available in the work area. Contact lenses should not be worn when working with this product.

**Skin protection** Wear special gloves and working clothes to avoid skin irritation or sensitization. Depending on operation, chemical resistant boots, overshoes, and apron may also be required.

**Suitable materials for clothing:** Polyethylene/ethylene vinyl alcohol laminates (PE/VAL) has been reported as an effective material of construction for chemical protective clothing for MDI.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical form.** . . . . . Liquid

**Color** . . . . . Dark-Brown

**Odor** . . . . . Earthy, musty

**Boiling point** . . . . . >300°C

**Flash point** . . . . . >250°C

**Vapour pressure.** . . . . . <0,00001 mbar at 20° C (diphenyl-methane-diisocyanate)

**Specific gravity** . . . . . Approx. 1,14 g/cm<sup>3</sup> at 20° C

**Viscosity** . . . . . 4,000 – 7,000 mPa.s at 25°C (Brookfield sp. 6/20 rpm)

**Solubility in water** . . . . . reacts

**Percent VOC** . . . . . 0%

**Pour point.** . . . . . Approx -12°C (10.4 °F)

## 10. STABILITY AND REACTIVITY

### Stability

The product is stable under the recommended handling and storage conditions (see section 7).

### Hazardous decomposition products

By exposure to high temperature, hazardous decomposition products may develop, such as isocyanate vapour and mist, carbon dioxide, carbon monoxide, nitrogen oxide, and traces of hydrogen cyanide.

### Hazardous reaction

Exothermic reaction with amines and alcohols; reacts with water forming heat, CO<sub>2</sub>, and insoluble polyurea. The combined effect of CO<sub>2</sub> and heat can produce enough pressure to rupture a closed container.

## 11. TOXICOLOGICAL INFORMATION

**Acute Oral Toxicity** LD<sub>50</sub> rat: > 2,000 mg/kg

**Acute Inhalation Toxicity** LC<sub>50</sub> rat: 490 mg/m<sup>3</sup>, aerosol, 4 h

**Skin Irritation** rabbit, slight irritant

**Inhalation** Over-exposure may cause irritating effects on nose throat and respiratory tract.

**Skin contact** Prolonged or repeated contact may result in tanning and irritating effects.

**Eye contact** Over-exposure may cause irritating effects on eyes.



## MATERIALS SAFETY DATA SHEET

Date Prepared May 26, 2011 3<sup>rd</sup> Edition

FOR CHEMICAL EMERGENCY

During Business Hours: (800) 966-3458

Outside Business Hours: (800) 420-7186

### 12. ECOLOGICAL INFORMATION

Do not allow the product to escape into waters, wastewater or soil.

**Biodegradability** 0% after 28 days

**Bioaccumulation** Does not bioaccumulate.

**Acute toxicity to fish** LC0 > 1,000 mg/l (Zebra fish, Brachydanio rerio) 96 hrs.

**Toxicity for daphnia** EC 50 > 1,000 mg/l (24 hrs.)

**Acute toxicity to bacteria** EC 50 > 100 mg/l (3 hrs.)

### 13. DISPOSAL CONSIDERATIONS

The product remnants are classified as chemical waste. Dispose of waste according to Local, State, Federal, and Provincial Environmental Regulations.

### 14. TRANSPORTATION INFORMATION

**No classification assigned to:** Land transport (DOT) / Sea transport (IMDG) / Air transport (ICAO/IATA)

### 15. REGULATION INFORMATION

This product and its components are listed on the TSCA 8(b) inventory.

#### United States Federal Regulations

OSHA Hazcom Standard Rating: Hazardous

US. Toxic Substances Control Act: Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

#### Components

4,4'-Diphenylmethane Diisocyanate (MDI)

SARA Section 311/312 Hazard Categories: Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III

Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

#### Components

None

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III**

**Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:**

#### Components

Polymeric Diphenylmethane Diisocyanate (pMDI)

4,4'-Diphenylmethane Diisocyanate (MDI)

**US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):**

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24).





## MATERIALS SAFETY DATA SHEET

Date Prepared May 26, 2011 3<sup>rd</sup> Edition

FOR CHEMICAL EMERGENCY

During Business Hours: (800) 966-3458

Outside Business Hours: (800) 420-7186

### State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

This product contains a trace (ppm) amount of phenyl isocyanate (CAS# 103-71-9) and monochlorobenzene (CAS# 108-90-7), present below the maximum concentration for D021 toxicity.

### **Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:**

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
40 - 50%	Polyisocyanate Prepolymer based on MDI	CAS# is a trade secret
25 - 35%	Polymeric Diphenylmethane Diisocyanate (pMDI)	9016-87-9
20 - 30%	4,4'-Diphenylmethane Diisocyanate (MDI)	101-68-8
1 - 5%	Diphenylmethane Diisocyanate (MDI) Mixed Isomers	26447-40-5

### **New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:**

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
25 - 35%	Polymeric Diphenylmethane Diisocyanate (pMDI)	9016-87-9
20 - 30%	4,4'-Diphenylmethane Diisocyanate (MDI)	101-68-8

### **California Prop. 65:**

Warning! This product contains chemical(s) known to the State of California to be - Developmental toxin.

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
10 ppm	Toluene	108-88-3

## 16. OTHER INFORMATION

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or Provincial, and Local laws.

The Gorilla Glue Company does not test on animals, nor do we require our suppliers to test on animals. Any information provided in this MSDS is based on existing scientific testing of the various raw materials, and is not commissioned by this Company.

**Section 1: PRODUCT & COMPANY IDENTIFICATION**

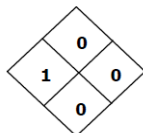
Product Name: Simple Green® All-Purpose Cleaner  
Additional Names: Simple Green® Concentrated Cleaner Degreaser Deodorizer  
Simple Green® Scrubbing Pad (Fluid in pad only)

Manufacturer's Part Number: *\*Please refer to page 4*

Company: Sunshine Makers, Inc.  
15922 Pacific Coast Highway  
Huntington Beach, CA 92649 USA  
Telephone: 800-228-0709 • 562-795-6000 Fax: 562-592-3830  
Emergency Phone: Chem-Tel 24-Hour Emergency Service: 800-255-3924

**Section 2: HAZARDS IDENTIFICATION**

**Emergency Overview:** **CAUTION. Irritant. This is a Green colored liquid with a sassafras added odor. Scrubbing pad is a green fibrous rectangle infused with Simple Green Cleaner.**



NFPA/HMIS Rating:

Health = 1 = slight

Fire, Reactivity, and Special = 0 = minimal

**Potential Health Effects**

**Eye Contact:** Mildly irritating.

**Skin Contact:** No adverse effects expected under typical use conditions. Prolonged exposure may cause dryness. Chemically sensitive individuals may experience mild irritation.

**Ingestion:** May cause stomach or intestinal irritation if swallowed.

**Inhalation:** No adverse effects expected under typical use conditions. Adequate ventilation should be present for prolonged usage in small enclosed areas.

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Ingredient</u>	<u>CAS Number</u>	<u>Percent Range</u>
Water	7732-18-5	≥ 78%
2-butoxyethanol	111-76-2	≤ 5%
Ethoxylated Alcohol	68439-46-3	≤ 5%
Tetrapotassium Pyrophosphate	7320-34-5	≤ 5%
Sodium Citrate	68-04-2	≤ 5%
Fragrance	Proprietary Mixture	≤ 1%
Colorant	Proprietary Mixture	≤ 1%

**Section 4: FIRST AID MEASURES**

**If Inhaled:** If adverse effect occurs, move to fresh air.

**If on skin:** If adverse effect occurs, rinse skin with water.

**If in eyes:** Flush with plenty of water. After 5 minutes of flushing, remove contact lenses, if present. Continue flushing for at least 10 more minutes. If irritation persists seek medical attention.

**If ingested:** Drink plenty of water to dilute.

**Section 5: FIRE FIGHTING MEASURES**

This formula is stable, non-flammable, and will not burn. No special procedures necessary

**Flammability:** Non-flammable

**Flash Point:** Non-flammable

**Suitable Extinguishing Media:** Use Dry chemical, CO<sub>2</sub>, water spray or “alcohol” foam.

**Extinguishing Media to Avoid** High volume jet water.

**Special Exposure Hazards:** In event of fire created carbon oxides, oxides of phosphorus may be formed.

**Special Protective Equipment:** Wear positive pressure self-contained breathing apparatus; Wear full protective clothing.

**Section 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** See section 8 – personal protection.

**Environmental Precautions:** Do not allow into open waterways and ground water systems.

**Method for Clean Up:** Dilute with water and rinse into sanitary sewer system or soak up with inert absorbent material.

**Section 7: HANDLING AND STORAGE**

**Handling:** Keep container tightly closed. Ensure adequate ventilation. Keep out of reach of children.

**Storage:** Keep in cool dry area.

**Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure Limit Values:**

	OSHA PEL	ACGIH TLV
2-butoxyethanol	TWA 50 ppm (240 mg/m <sup>3</sup> )	20 ppm (97 mg/m <sup>3</sup> )
Tetrapotassium Pyrophosphate		5 mg/m <sup>3</sup>

**Exposure Controls:**

Eye Contact: Use protective glasses if splashing or spray-back is likely.

Respiratory: Use in well ventilated areas.

Skin Contact: Prolonged exposure or dermal sensitive individuals should use protective gloves.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Green Liquid	<b>Vapor Pressure:</b>	18 mmHg @20°C; 23.5 mmHg @26°C	
<b>Odor:</b>	Added Sassafras odor	<b>Density:</b>	8.5 lb/gal;	
<b>Specific Gravity:</b>	1.010 ± 0.010	<b>Water Solubility:</b>	100%	
<b>pH:</b>	9.5 ± 0.5	<b>VOC composite Partial Pressure:</b>	TBD	
<b>Boiling Point:</b>	~210°F (98 °C)	<b>VOC:</b>	CARB Method 310	3.8%
<b>Freezing Point:</b>	~ 32°F (0 °C)		SCAQMD Method 313	2.8%
<b>Nutrient Content:</b>	Phosphorous: 0.28% Chloride: ~110 ppm	Sulfur: ~180 ppm Fluorine: ~90 ppm		

**Section 10: STABILITY AND REACTIVITY**

Stability: Stable  
Materials to Avoid: None known  
Hazardous Decomposition Products: Normal products of combustion - CO, CO<sub>2</sub>; Oxides of Phosphorous may occur.

**Section 11: TOXICOLOGICAL INFORMATION**

Acute Toxicity: Oral LD<sub>50</sub> (rat) > 5 g/kg body weight  
Dermal LD<sub>50</sub> (rabbit) > 5 g/kg body weight  
Toxicity calculated from ingredients using OECD SERIES ON TESTING AND ASSESSMENT Number 33

Carcinogens: No ingredients are listed by OSHA, IARC, or NTP as known or suspected carcinogens.

**Section 12: ECOLOGICAL INFORMATION**

Hazard to wild mammals: Low, based on toxicology profile  
Hazard to avian species: Low, based on toxicology profile  
Hazard to aquatic organisms: Low, based on toxicology profile  
Chemical Fate Information: Readily Biodegradable per OECD 301D, Closed Bottle Test

**Section 13: DISPOSAL CONSIDERATIONS**

Appropriate Method for Disposal:

Unused Product: \*Dilute with water to use concentration and dispose by sanitary sewer.  
Used Product: \*This product can enter into clarifiers and oil/water separators. Used product may be hazardous depending on the cleaning application and resulting contaminants.  
Empty Containers: \*Triple-rinse with water and offer for recycling if available in your area. Otherwise, dispose as non-hazardous waste.

\*Dispose of used or unused product, and empty containers in accordance with the local, State, Provincial, and Federal regulations for your location. Never dispose of used degreasing rinsates into lakes, streams, and open bodies of water or storm drains.

**Section 14: TRANSPORT INFORMATION**

U.S. Department of Transportation (DOT) / Canadian TDG: Not Regulated

IMO / IDMG: Not classified as Dangerous  
ICAO/ IATA: Not classified as Dangerous  
ADR/RID: Not classified as Dangerous

U.N. Number	Not Required	Proper Shipping Name:	Detergent Solution
Hazard Class:	Non-Hazardous	Marine Pollutant:	No

**Section 15: REGULATORY INFORMATION**All components are listed on: EINECS, TSCA, DSL and AICS Inventory.No components listed under: Clean Air Act Section 112; Clean Water Act 307 & 311SARA Title III 2-butoxyethanol is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 as Category N230 – Certain Glycol Ethers.RCRA Status: Not a hazardous waste CERCLA Status: No components listedState Right To Know Lists

2-butoxyethanol

Illinois, Massachusetts, New Jersey, Pennsylvania, Rhode Island

**WHMIS Classification** – Category D, subcategory 2B, eye irritantName Toxic Substances List – Schedule 1 – CEPA  
(Canadian Environmental Protection Act)

NPRI Inventory

2-butoxyethanol

Yes

No

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by Canada's Controlled Products Regulation.

**Section 16: OTHER INFORMATION**

Questions about the information found on this MSDS should be directed to:

SUNSHINE MAKERS, INC. – TECHNICAL DEPARTMENT

15922 Pacific Coast Hwy. Huntington Beach, CA 92649

*Phone:* 800/228-0709 [8am-5pm Pacific time, Mon-Fri] *Fax:* 562/592-3830 *Email:* infoweb@simplegreen.com**CAGE CODE 1Z575****GSA/FSS - CONTRACT NO. GS-07F-0065J****Scrubbing Pad GSA/BPA - CONTRACT NO. GS-07F-BSIMP****National Stock Numbers & Industrial Part Numbers:**

Simple Green	Part Number	NSN	Size
	13012	7930-01-342-5315	24 oz spray (12/case)
	13005	7930-01-306-8369	1 Gallon (6/case)
	13006	7930-01-342-5316	5 Gallon
	13016	7930-01-342-5317	15 Gallon
	13008	7930-01-342-4145	55 Gallon
	13103	N/A	2oz samples
	13225	N/A	2.5 Gallon
	13275	N/A	275 Gallon tote
	48049	N/A	1 Gallon Conc. w/ 32oz dilution
<b>Scrubbing Pad</b>	10224	7930-01-346-9148	Each (24/case)

**Retail Numbers:**

Part Number	Size
13002	16 oz Trigger (12/case)
13005	1 Gallon (6/case)
13013	24 oz Trigger (12/case)
13014	67 oz / 2 L (6/case)
13033	32 oz Trigger (12/case)
80007	Tier display holding 13005 (36/Tier)

*part number is for both industrial and retail***\*\*International Part Numbers May Differ.****DISCLAIMER:** The information provided with this MSDS is furnished in good faith and without warranty of any kind. Personnel handling this material must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of this material and the safety and health of employees and customers. Sunshine Makers, Inc. assumes no additional liability or responsibility resulting from the use of, or reliance on this information.

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P.



NO. 36 REFRACTORY CEMENT

This product contains aluminum oxide ( $\text{Al}_2\text{O}_3$ ), CAS No. 1344-28-1, which is reportable under Section 313 of Title III of SARA and 40 CFR Part 472. For purposes of reporting environmental discharge, use 39% aluminum oxide content.

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SECTION IV

APR 19 1988

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: None

EXTINGUISHING MEDIA: Not Combustible

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION V

HEALTH HAZARD DATA

EFFECT OF OVEREXPOSURE:

EYES ACUTE: Dust or aggregate particles can cause mechanical irritation. Liquid sodium silicate can cause eye injury or irritation.  
CHRONIC: Unknown.

SKIN ACUTE: Can cause mechanical abrasion. Liquid sodium silicate can cause skin drying and chapping.  
CHRONIC: Unknown.

INHALATION ACUTE: Dust, if present, may cause upper respiratory irritation.  
CHRONIC: Dust may cause lung damage if inhaled on a long-term basis.

INGESTION ACUTE: Unknown  
CHRONIC: Unknown.

EMERGENCY AND FIRST AID PROCEDURES:

EYES Immediately flush eyes with water for 15 minutes. Obtain prompt medical attention.

SKIN Wash exposed areas promptly. Consult physician if irritation occurs.

INHALATION Remove to fresh air. Seek medical attention.

INGESTION Contact physician immediately. Do not induce vomiting unless instructed to do so by physician.

2057429426

# A. P. GREEN INDUSTRIES, INC.

MEXICO, MISSOURI 65265 U.S.A.

April 19, 1988

## MATERIAL SAFETY DATA SHEET

A. P. Green Industries, Inc.  
Green Boulevard, Mexico, Missouri 65265  
Telephone Number -- 314-473-3626

### SECTION I

PRODUCT NAMES: NO. 36 REFRACTORY CEMENT

PRODUCT TYPE: Refractory Mortar

CHEMICAL FAMILY:  $\text{SiO}_2$  = 23-27%,  $\text{Al}_2\text{O}_3$  = 65-69% FORMULA: Proprietary  
 $\text{Fe}_2\text{O}_3$  = 1-2%,  $\text{Na}_2\text{O}$  = 2-3%

### SECTION II

#### PRODUCT HAZARDOUS INGREDIENTS

<u>Chemical</u>	<u>TLV-TWA</u>	<u>CAS #</u>
Cristobalite ( $\text{SiO}_2$ ) ( $<8\%$ )	0.05 $\text{mg}/\text{m}^3$ * Respirable Dust	14464-46-1
Quartz ( $\text{SiO}_2$ ) ( $<5\%$ )	0.1 $\text{mg}/\text{m}^3$ * Respirable Dust	14808-60-7
Liquid Sodium Silicate (15-22%)	(None)	6834-92-0

\* Source: American Conference of Governmental Industrial Hygienists,  
1987-1988.

### SECTION III

#### PHYSICAL DATA

SOLUBILITY IN WATER: Nil

SPECIFIC GRAVITY: 2.2

MELTING POINT: Not Applicable

APPEARANCE AND ODOR: Buff to gray granular paste; no odor

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SECTION VI

APR 10 1988

REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY: None Known

HAZARDOUS POLYMERIZATION: Will Not Occur

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SECTION VII

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Shovel up and place in a container.

WASTE DISPOSAL METHOD: May be disposed of in an approved landfill, in accordance with local, state, and federal regulations.

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SECTION VIII

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NIOSH approved respirator when working around dried material or when removing this product after service.

VENTILATION: General mechanical ventilation is adequate.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

OTHER PROTECTION: Use of rubber gloves and long-sleeved and long-legged clothing protects hands, arms, and legs from skin contact. Safety shoes should be worn to protect feet from accidentally dropped containers of mortar.

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SECTION IX

APR 19 1988

SPECIAL PRECAUTIONS

Warning: This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

NIOSH approved respirators should be worn any time that refractories are torn out after service. While some respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Refractories or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith  
Title: Senior Technical Consultant  
Phone: (314) 473-3392

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## MATERIAL SAFETY DATA SHEET

MSDS Number: 1102C

### Section 1

#### PRODUCT AND COMPANY IDENTIFICATION

Trade Name: OATEY CANADIAN PVC HEAVY DUTY CLEAR or GREY CEMENT  
Product Nos.: Clear 31011, 31476, 31477, 31478, 31479 Grey 31510, 31511, 31512, 31513, 31514  
Product Use: Cement for PVC Plastic Pipe  
Formula: PVC Resin in Solvent Solution  
Synonyms: PVC Plastic Pipe Cement  
Firm Name & Address: Oatey Company 4700 West 160th Street, Cleveland, Ohio 44135  
www.oatey.com  
Firm Phone No: (216) 267-7100  
Emergency Phone Nos.: For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.  
Prepared by: Technical Department  
Preparation Date: 09/11/2012

### Section 2

#### HAZARDS IDENTIFICATION

Emergency Overview:

Clear or Gray

liquid with an ether-like odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

### Section 3

#### COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:	%wt/wt :	CAS NUMBER:	ACGIH TLV TWA:	OSHA PEL TWA	OTHER:
Tetrahydrofuran	30 - 60%	109-99-9	50 ppm(skin) 100 ppm STEL	200 ppm	25 ppm (Mfg)
Methyl Ethyl Ketone	7 - 13%	78-93-3	200 ppm 300 ppm	200 ppm	None
Acetone	10 - 20%	67-64-1	500 ppm 750 ppm STEL	1000 ppm	None
PVC Resin (Non-hazardous)	10 - 20%	9002-86-2	10 mg/m3	15 mg/m3	None
Cyclohexanone	10 - 30%	108-94-1	20 ppm(skin) 50 ppm STEL	50 ppm	None
Amorphous Fumed Silica (Non-hazardous)	1 - 5%	112945-52-5	10 mg/m3	None Established	None

OSHA Hazard Classification: Flammable, irritant, organ effects

### Section 4

#### FIRST AID MEASURES

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with Oatey Plumber's Hand Cleaner or baby oil.  
Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.

Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.

Ingestion: **DO NOT INDUCE VOMITING.** Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

#### **Section 5 FIRE FIGHTING MEASURES**

Flashpoint / Method: 14 - 23 Degrees F. (-10 to -5 Degrees C) / CCCFP

Flammability: LEL = 1.8 % Volume, UEL = 11.8 % Volume

Extinguishing Media: Use dry chemical, CO<sub>2</sub>, or foam to extinguish fire. Cool fire exposed container with water. Water may be ineffective as an extinguishing agent.

Special Fire Fighting Procedure: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored

Unusual Fire And Explosion Hazards: Extremely flammable liquid. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

Hazardous Decomposition Products: Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

#### **Section 6 ACCIDENTAL RELEASE MEASURES**

Spill or Leak Procedures: Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for disposal information.

#### **Section 7 HANDLING AND STORAGE**

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.

Storage: Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.

Other: "Empty" containers retain product residue and can be hazardous. Follow all MSDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

#### **Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Ventilation: Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.

Respiratory Protection: For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Skin Protection: Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm)

Eye Protection: to avoid prolonged skin contact.  
Safety glasses with side shields or safety goggles.

## Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 151 Degrees F / 66 Degrees C  
Melting Point: Not applicable  
Vapor Pressure: 145 mmHg @ 20 Degrees C  
Vapor Density: (Air = 1) 2.5  
Volatile Components: 80-84%  
Solubility In Water: Negligible  
pH: Not applicable  
Specific Gravity: 0.94 +/- 0.02 @ 20 Degrees C  
Evaporation Rate: (BUAC = 1) = 5.5 - 8.0  
Appearance: Clear or Gray Liquid  
Odor: Ether-Like  
Will Dissolve In: Tetrahydrofuran  
Material Is: Liquid

## Section 10 STABILITY AND REACTIVITY

Stability: Stable.  
Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.  
Hazardous Decomposition Products: Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.  
Incompatibility/ Materials To Avoid: Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.  
Hazardous Polymerization: Will not occur.

## Section 11 TOXICOLOGICAL INFORMATION

Inhalation: Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.  
Skin: May cause irritation with redness, itching and pain. Methyl ethyl ketone and cyclohexanone may be absorbed through the skin causing effects similar to those listed under inhalation.  
Eye: Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.  
Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.  
Chronic Toxicity: Prolonged or repeated overexposure cause dermatitis and damage to the kidney, liver, lungs and central nervous system.  
Toxicity Data: Acetone: Oral rat LD50: 5,800 mg/kg  
Inhalation rat LC50: 50,100 mg/m3/8 hours  
Cyclohexanone: Oral rat LD50: 1,620 mg/kg  
Inhalation rat LC50: 8,000 ppm/4 hours  
Skin rabbit LD50: 1 mL/kg  
Tetrahydrofuran: Oral rat LD50: 1,650 mg/kg  
Inhalation rat LC50: 21,000 ppm/3 hours  
Methyl Ethyl Ketone: Oral rat LD50: 2,737 mg/kg  
Inhalation rat LC50: 23,500 mg/m3/8 hours  
Skin rabbit LD50: 6,480 mg/kg  
Sensitization: None of the components are known to cause sensitization.  
Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The National Toxicology Program has reported that

exposure of mice and rats to tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health is unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. ACGIH has classified cyclohexanone (CYH) and tetrahydrofuran as "A3," Confirmed Animal Carcinogens with Unknown Relevance to Humans.

Mutagenicity: Cyclohexanone has been positive in bacterial and mammalian assays. Acetone, methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.

Reproductive Toxicity: Methyl ethyl ketone and cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

Medical Conditions Aggravated By Exposure: Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

## Section 12 ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms.  
 Cyclohexanone: 96 hour LC50 values for fish is over 100 mg/L.  
 Tetrahydrofuran: 96 hour LC50 fathead minnow: 2160 mg/L.  
 Acetone: 96 hour LC50 for fish is greater than 100 mg/L.  
 Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC Information: This product emits VOC's (volatile organic compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.

VOC Level: Maximum 510 g/L per SCAQMD Test Method 316A.

## Section 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with current local, state and federal regulations.

RCRA Hazardous Waste Number: U002, U057, U159, U213

EPA Hazardous Waste ID Number: D001, D035, F003, F0005

EPA Hazard Waste Number: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

## Section 14 TRANSPORT INFORMATION

	<u>Less than 1 Liter (0.3 gal)</u>	<u>Greater than 1 Liter (0.3 gal)</u>
UN/NA Number:	None	UN1133
Proper Shipping Name:	Consumer Commodity	Adhesives
Hazard Class:	ORM-D	3
Packing Group:	None	PGII
Hazard Labels:	None	Flammable Liquid
IMDG		
UN Number:	UN1133	UN1133
Proper Shipping Name:	Adhesives	Adhesives
Hazard Class:	3	3
Packing Group:	II	II
Label:	None (Limited Quantities are expected from labeling)	Class 3 (Flammable Liquid)
Flashpoint (deg C)	-10 to -5 Degrees C	-10 to -5 Degrees C

## Section 15 REGULATORY INFORMATION

Hazard Category for Acute Health, Chronic Health, Flammable

Section 311/312:

Section 302 This product does not contain chemicals regulated under SARA Section 302.  
Extremely Hazardous  
Substances (TPQ):  
Section 313 Toxic This product does not contain chemicals subject to SARA Title III Section  
Chemicals: 313 Reporting requirements.  
CERCLA 103 Spills of this product over the RQ (reportable quantity) must be reported  
Reportable to the National Response Center. The RQ for the product, based on the RQ  
Quantity: for Tetrahydrofuran (60% maximum) of 1,000 lbs, is 1,667 lbs.  
Many states have more stringent release reporting requirements. Report  
spills required under federal, state and local regulations.  
California This product contains trace amounts of chemicals known to the State of  
Proposition 65: California to cause cancer. Under normal use conditions, exposure to  
these chemicals at levels above the State of California "No Significant  
Risk Level" (NSRL) are unlikely. The use of proper personal protective  
equipment (PPE) and ventilation guidelines noted in Section 8 will  
minimize exposure to these chemicals.  
TSCA Inventory All of the components of this product are listed on the TSCA inventory.  
Canadian WHIMS Class B, Division 2; Class D, Division 2, Subdivision B; Class D,  
Classification: Division 2, Subdivision A. This product has been classified in accordance  
with the hazard criteria of the Controlled Products Regulations (CPR) and  
the MSDS contains all the information required by the CPR.

## Section 16

### OTHER INFORMATION

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2\* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources, and expressly do not make warranties, nor assume any liability for its use.

Template: tmpl-cn-e1



## MATERIAL SAFETY DATA SHEET

MSDS Number: 1400C

### Section 1 PRODUCT AND COMPANY IDENTIFICATION

Trade Name: OATEY CANADIAN CLEAR CLEANER  
Product Nos.: 30766, 31493, 31494, 31495, 31496, 31520, 31521, 31522, 31523  
Product Use: Cleaner for cementing plastic pipe  
Formula: See Section 3  
Synonyms: Cleaner  
Firm Name & Address: Oatey Company 4700 West 160th Street, Cleveland, Ohio 44135  
www.oatey.com  
Firm Phone No: (216) 267-7100  
Emergency Phone Nos.: For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.  
Prepared by: Technical Department  
Preparation Date: 09/11/2012

### Section 2 HAZARDS IDENTIFICATION

Emergency Overview:  
Clear liquid with a sharp, penetrating odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

### Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENTS:</u>	<u>%wt/wt :</u>	<u>CAS NUMBER:</u>	<u>ACGIH TLV TWA:</u>	<u>OSHA PEL TWA</u>	<u>OTHER:</u>
Methyl Ethyl Ketone	40 - 70%	78-93-3	200 ppm 300 ppm	200 ppm	None
Acetone	40 - 70%	67-64-1	500 ppm 750 ppm STEL	1000 ppm	None

OSHA Hazard Classification: Flammable, irritant, organ effects

### Section 4 FIRST AID MEASURES

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with Oatey Plumber's Hand Cleaner or baby oil.  
Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.  
Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.  
Ingestion: **DO NOT INDUCE VOMITING.** Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.



**Section 5**            **FIRE FIGHTING MEASURES**  
Flashpoint /        14 - 23 Degrees F. (-10 to -5 Degrees C) / CCCFP  
Method:  
Flammability:      LEL = 1.8 % Volume, UEL = 11.8 % Volume  
Extinguishing      Use dry chemical, CO2, or foam to extinguish fire. Cool fire exposed container  
Media:              with water. Water may be ineffective as an extinguishing agent.  
Special Fire        Firefighters should wear positive pressure self-contained breathing apparatus  
Fighting            and full protective clothing for fires in areas where chemicals are used or  
Procedure:          stored  
Unusual Fire        Extremely flammable liquid. Keep away from heat and all sources of ignition  
And Explosion      including sparks, flames, lighted cigarettes and pilot lights. Containers may  
Hazards:            rupture or explode in the heat of a fire. Vapors are heavier than air and may  
                        travel to a remote ignition source and flash back.  
Hazardous          Combustion will produce toxic and irritating vapors including carbon monoxide,  
Decomposition      carbon dioxide and hydrogen chloride.  
Products:

**Section 6**            **ACCIDENTAL RELEASE MEASURES**  
Spill or Leak        Remove all sources of ignition and ventilate area. Stop leak if it can be done  
Procedures:        without risk. Personnel cleaning up the spill should wear appropriate personal  
                        protective equipment, including respirators if vapor concentrations are high.  
                        Soak up spill with an inert absorbent such as sand, earth or other non-  
                        combusting material. Put absorbent material in covered, labeled metal  
                        containers. Prevent liquid from entering watercourses, sewers and natural  
                        waterways. Report releases to authorities as required. See Section 13 for  
                        disposal information.

**Section 7**            **HANDLING AND STORAGE**  
Handling:            Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists.  
                        Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after  
                        handling. Do not eat, drink or smoke in the work area. Keep product away from  
                        heat, sparks, flames and all other sources of ignition. No smoking in storage  
                        or use areas. Keep containers closed when not in use.  
Storage:             Store in a cool, dry, well-ventilated area away from incompatible materials.  
                        Keep containers closed when not in use.  
Other:                "Empty" containers retain product residue and can be hazardous. Follow all MSDS  
                        precautions in handling empty containers. Do not cut or weld on or near empty  
                        or full containers.

**Section 8**            **EXPOSURE CONTROLS/PERSONAL PROTECTION**  
Ventilation:        Open doors & windows. Provide ventilation capable of maintaining emissions at  
                        the point of use below recommended exposure limits. If used in enclosed area,  
                        use exhaust fans. Exhaust fans should be explosion-proof or set up in a way  
                        that flammable concentrations of solvent vapors are not exposed to electrical  
                        fixtures or hot surfaces.  
Respiratory        For operations where the exposure limit may be exceeded, a NIOSH approved  
Protection:        organic vapor respirator or supplied air respirator is recommended. Equipment  
                        selection depends on contaminant type and concentration, select in accordance  
                        with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting,  
                        use self-contained breathing apparatus.  
Skin                 Rubber gloves are suitable for normal use of the product. For long exposures  
Protection:        chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm)  
                        to avoid prolonged skin contact.  
Eye                  Safety glasses with side shields or safety goggles.  
Protection:

**Section 9**            **PHYSICAL AND CHEMICAL PROPERTIES**  
  
Boiling Point:                      133 Degrees F / 56 Degrees C  
Melting Point:                      Not applicable  
Vapor Pressure:                    145 mmHg @ 20 Degrees C  
Vapor Density:                    (Air = 1) 2.5  
Volatile Components:            100%

Solubility In Water:	Negligible
pH:	Not applicable
Specific Gravity:	0.81 +/- 0.02 @ 20 Degrees C
Evaporation Rate:	(BUAC = 1) = 5.5 - 8.0
Appearance:	Clear Liquid
Odor:	Sharp, penetrating odor
Will Dissolve In:	Methyl Ethyl Ketone
Material Is:	Liquid

## Section 10 STABILITY AND REACTIVITY

Stability: Stable.

Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.

Hazardous Decomposition Products: Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

Incompatibility/ Materials To Avoid: Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.

Hazardous Polymerization: Will not occur.

## Section 11 TOXICOLOGICAL INFORMATION

Inhalation: Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.

Skin: May cause irritation with redness, itching and pain. Methyl ethyl ketone may be absorbed through the skin causing effects similar to those listed under inhalation.

Eye: Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.

Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.

Chronic Toxicity: Prolonged or repeated overexposure cause dermatitis and damage to the kidney, liver, lungs and central nervous system.

Toxicity Data:

Acetone:	Oral rat LD50: 5,800 mg/kg
	Inhalation rat LC50: 50,100 mg/m3/8 hours
Methyl Ethyl Ketone:	Oral rat LD50: 2,737 mg/kg
	Inhalation rat LC50: 23,500 mg/m3/8 hours
	Skin rabbit LD50: 6,480 mg/kg

Sensitization: None of the components are known to cause sensitization.

Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA.

Mutagenicity: Acetone, methyl ethyl ketone are generally thought not to be mutagenic.

Reproductive Toxicity: Methyl ethyl ketone has been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

Medical Conditions Aggravated By Exposure: Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

## Section 12 ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms.

Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC Information: This product emits VOC's (volatile organic compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.

VOC Level: Maximum 550 g/L per SCAQMD Test Method 316A.

**Section 13 DISPOSAL CONSIDERATIONS**

Waste Disposal: Dispose in accordance with current local, state and federal regulations.

RCRA Hazardous Waste Number: U002, U159,

EPA Hazardous Waste ID Number: D001, D035, F003, F0005

EPA Hazard Waste Number: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

**Section 14 TRANSPORT INFORMATION**

DOT	<u>Less than 1 Liter (0.3 gal)</u>	<u>Greater than 1 Liter (0.3 gal)</u>
UN/NA Number:	None	UN1993
Proper Shipping Name:	Consumer Commodity	Flammable Liquid, NOS (Methyl Ethyl Ketone, Acetone)
Hazard Class:	ORM-D	3
Packing Group:	None	PGII
Hazard Labels:	None	Flammable Liquid
IMDG		
UN Number:	UN1993	UN1993
Proper Shipping Name:	Flammable Liquid, NOS (Limited Quantity)	Flammable Liquid, NOS (Methyl Ethyl Ketone, Acetone)
Hazard Class:	3	3
Packing Group:	II	II
Label:	None (Limited Quantities are expected from labeling)	Class 3 (Flammable Liquid)
Flashpoint (deg C)	-10 to -5 Degrees C	-10 to -5 Degrees C

2008 North American Emergency Response Guidebook Number: 127

**Section 15 REGULATORY INFORMATION**

Hazard Category for Section 311/312: Acute Health, Chronic Health, Flammable

Section 302: This product does not contain chemicals regulated under SARA Section 302.

Extremely Hazardous Substances (TPQ):

Section 313 Toxic Chemicals: This product does not contain chemicals subject to SARA Title III Section 313 Reporting requirements.

CERCLA 103 Reportable Quantity: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Methyl Ethyl Ketone (70% maximum) of 5,000 lbs, is 7,143 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65: This product does not contain any chemicals subject to California Proposition 65 regulations.

TSCA Inventory Classification: All of the components of this product are listed on the TSCA inventory. Class B, Division 2; Class D, Division 2, Subdivision B; Class D, Division 2, Subdivision A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**Section 16****OTHER INFORMATION**

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2\* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources, and expressly do not make warranties, nor assume any liability for its use.

Template: tmpl-cn-e3



## MATERIAL SAFETY DATA SHEET

MSDS Number: 1400C

### Section 1 PRODUCT AND COMPANY IDENTIFICATION

Trade Name: OATEY CANADIAN CLEAR CLEANER  
Product Nos.: 30766, 31493, 31494, 31495, 31496, 31520, 31521, 31522, 31523  
Product Use: Cleaner for cementing plastic pipe  
Formula: See Section 3  
Synonyms: Cleaner  
Firm Name & Address: Oatey Company 4700 West 160th Street, Cleveland, Ohio 44135  
www.oatey.com  
Firm Phone No: (216) 267-7100  
Emergency Phone Nos.: For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.  
Prepared by: Technical Department  
Preparation Date: 09/11/2012

### Section 2 HAZARDS IDENTIFICATION

Emergency Overview:  
Clear liquid with a sharp, penetrating odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

### Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:	%wt/wt :	CAS NUMBER:	ACGIH TLV TWA:	OSHA PEL TWA	OTHER:
Methyl Ethyl Ketone	40 - 70%	78-93-3	200 ppm 300 ppm	200 ppm	None
Acetone	40 - 70%	67-64-1	500 ppm 750 ppm STEL	1000 ppm	None

OSHA Hazard Classification: Flammable, irritant, organ effects

### Section 4 FIRST AID MEASURES

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with Oatey Plumber's Hand Cleaner or baby oil.  
Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.  
Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.  
Ingestion: **DO NOT INDUCE VOMITING.** Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

**Section 5**            **FIRE FIGHTING MEASURES**  
Flashpoint /        14 - 23 Degrees F. (-10 to -5 Degrees C) / CCCFP  
Method:  
Flammability:      LEL = 1.8 % Volume, UEL = 11.8 % Volume  
Extinguishing      Use dry chemical, CO2, or foam to extinguish fire. Cool fire exposed container  
Media:              with water. Water may be ineffective as an extinguishing agent.  
Special Fire        Firefighters should wear positive pressure self-contained breathing apparatus  
Fighting            and full protective clothing for fires in areas where chemicals are used or  
Procedure:          stored  
Unusual Fire        Extremely flammable liquid. Keep away from heat and all sources of ignition  
And Explosion      including sparks, flames, lighted cigarettes and pilot lights. Containers may  
Hazards:            rupture or explode in the heat of a fire. Vapors are heavier than air and may  
                        travel to a remote ignition source and flash back.  
Hazardous          Combustion will produce toxic and irritating vapors including carbon monoxide,  
Decomposition      carbon dioxide and hydrogen chloride.  
Products:

**Section 6**            **ACCIDENTAL RELEASE MEASURES**  
Spill or Leak       Remove all sources of ignition and ventilate area. Stop leak if it can be done  
Procedures:       without risk. Personnel cleaning up the spill should wear appropriate personal  
                        protective equipment, including respirators if vapor concentrations are high.  
                        Soak up spill with an inert absorbent such as sand, earth or other non-  
                        combusting material. Put absorbent material in covered, labeled metal  
                        containers. Prevent liquid from entering watercourses, sewers and natural  
                        waterways. Report releases to authorities as required. See Section 13 for  
                        disposal information.

**Section 7**            **HANDLING AND STORAGE**  
Handling:           Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists.  
                        Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after  
                        handling. Do not eat, drink or smoke in the work area. Keep product away from  
                        heat, sparks, flames and all other sources of ignition. No smoking in storage  
                        or use areas. Keep containers closed when not in use.  
Storage:            Store in a cool, dry, well-ventilated area away from incompatible materials.  
                        Keep containers closed when not in use.  
Other:               "Empty" containers retain product residue and can be hazardous. Follow all MSDS  
                        precautions in handling empty containers. Do not cut or weld on or near empty  
                        or full containers.

**Section 8**            **EXPOSURE CONTROLS/PERSONAL PROTECTION**  
Ventilation:        Open doors & windows. Provide ventilation capable of maintaining emissions at  
                        the point of use below recommended exposure limits. If used in enclosed area,  
                        use exhaust fans. Exhaust fans should be explosion-proof or set up in a way  
                        that flammable concentrations of solvent vapors are not exposed to electrical  
                        fixtures or hot surfaces.  
Respiratory        For operations where the exposure limit may be exceeded, a NIOSH approved  
Protection:        organic vapor respirator or supplied air respirator is recommended. Equipment  
                        selection depends on contaminant type and concentration, select in accordance  
                        with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting,  
                        use self-contained breathing apparatus.  
Skin                 Rubber gloves are suitable for normal use of the product. For long exposures  
Protection:        chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm)  
                        to avoid prolonged skin contact.  
Eye                  Safety glasses with side shields or safety goggles.  
Protection:

**Section 9**            **PHYSICAL AND CHEMICAL PROPERTIES**  
  
Boiling Point:                      133 Degrees F / 56 Degrees C  
Melting Point:                      Not applicable  
Vapor Pressure:                    145 mmHg @ 20 Degrees C  
Vapor Density:                      (Air = 1) 2.5  
Volatile Components:              100%

Solubility In Water:	Negligible
pH:	Not applicable
Specific Gravity:	0.81 +/- 0.02 @ 20 Degrees C
Evaporation Rate:	(BUAC = 1) = 5.5 - 8.0
Appearance:	Clear Liquid
Odor:	Sharp, penetrating odor
Will Dissolve In:	Methyl Ethyl Ketone
Material Is:	Liquid

## Section 10 STABILITY AND REACTIVITY

Stability: Stable.

Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.

Hazardous Decomposition Products: Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

Incompatibility/ Materials To Avoid: Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.

Hazardous Polymerization: Will not occur.

## Section 11 TOXICOLOGICAL INFORMATION

Inhalation: Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.

Skin: May cause irritation with redness, itching and pain. Methyl ethyl ketone may be absorbed through the skin causing effects similar to those listed under inhalation.

Eye: Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.

Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.

Chronic Toxicity: Prolonged or repeated overexposure cause dermatitis and damage to the kidney, liver, lungs and central nervous system.

Toxicity Data:

Acetone:	Oral rat LD50: 5,800 mg/kg
	Inhalation rat LC50: 50,100 mg/m3/8 hours
Methyl Ethyl Ketone:	Oral rat LD50: 2,737 mg/kg
	Inhalation rat LC50: 23,500 mg/m3/8 hours
	Skin rabbit LD50: 6,480 mg/kg

Sensitization: None of the components are known to cause sensitization.

Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA.

Mutagenicity: Acetone, methyl ethyl ketone are generally thought not to be mutagenic.

Reproductive Toxicity: Methyl ethyl ketone has been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

Medical Conditions Aggravated By Exposure: Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

## Section 12 ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms.

Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC Information: This product emits VOC's (volatile organic compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.

VOC Level: Maximum 550 g/L per SCAQMD Test Method 316A.

### Section 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with current local, state and federal regulations.

RCRA Hazardous Waste Number: U002, U159,

EPA Hazardous Waste ID Number: D001, D035, F003, F0005

EPA Hazard Waste Number: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

### Section 14 TRANSPORT INFORMATION

DOT	<u>Less than 1 Liter (0.3 gal)</u>	<u>Greater than 1 Liter (0.3 gal)</u>
UN/NA Number:	None	UN1993
Proper Shipping Name:	Consumer Commodity	Flammable Liquid, NOS (Methyl Ethyl Ketone, Acetone)
Hazard Class:	ORM-D	3
Packing Group:	None	PGII
Hazard Labels:	None	Flammable Liquid
IMDG		
UN Number:	UN1993	UN1993
Proper Shipping Name:	Flammable Liquid, NOS (Limited Quantity)	Flammable Liquid, NOS (Methyl Ethyl Ketone, Acetone)
Hazard Class:	3	3
Packing Group:	II	II
Label:	None (Limited Quantities are expected from labeling)	Class 3 (Flammable Liquid)
Flashpoint (deg C)	-10 to -5 Degrees C	-10 to -5 Degrees C

2008 North American Emergency Response Guidebook Number: 127

### Section 15 REGULATORY INFORMATION

Hazard Category for Section 311/312: Acute Health, Chronic Health, Flammable

Section 302: This product does not contain chemicals regulated under SARA Section 302.

Extremely Hazardous Substances (TPQ):

Section 313 Toxic Chemicals: This product does not contain chemicals subject to SARA Title III Section 313 Reporting requirements.

CERCLA 103 Reportable Quantity: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Methyl Ethyl Ketone (70% maximum) of 5,000 lbs, is 7,143 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65: This product does not contain any chemicals subject to California Proposition 65 regulations.

TSCA Inventory Classification: All of the components of this product are listed on the TSCA inventory. Class B, Division 2; Class D, Division 2, Subdivision B; Class D, Division 2, Subdivision A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.



**Section 16****OTHER INFORMATION**

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2\* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources, and expressly do not make warranties, nor assume any liability for its use.

Template: tmpl-cn-e3

**MATERIAL SAFETY DATA SHEET**

**SECTION 1**

**PRODUCT AND COMPANY IDENTIFICATION**

Trade Name: OATEY DARK THREAD CUTTING OIL  
Product Use: Oil for pipe cutting and threading  
Formula: Petroleum Distillates mixture  
Synonyms: Thread cutting oil  
Firm Name & Mailing Address: OATEY CO. 4700 West 160th Street P.O. Box 35906 Cleveland, Ohio 44135, U.S.A. <http://www.oatey.com>  
Oatey Phone Number: (216) 267-7100 or (800) 321-9532  
Emergency Phone Numbers: For Emergency First Aid call 1-303-623-5716 COLLECT. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.  
Prepared By: Corporate Director - Safety and Environmental Compliance  
Preparation Date: July 27, 2005

**SECTION 2**

**COMPOSITION/INFORMATION ON INGREDIENTS**

<u>INGREDIENTS:</u>	<u>%wt/wt:</u>	<u>CAS NUMBER:</u>	<u>ACGIH TLV TWA:</u>	<u>OSHA PEL TWA:</u>	<u>OTHER:</u>
Petroleum distillates	90%, max.	69029-75-0	5mg/m3	5mg/m3	STEL: 10mg/m3
Petroleum distillates	25%, max.	69029-75-0	5mg/m3	5mg/m3	STEL: 10mg/m3
Sulfur additive	10%, max.	68153-70-8	None	None	None
Chlorinated paraffin	5%, max.	63449-39-8	None	None	None

OSHA Hazard Classification: Irritant.

**SECTION 3**

**HAZARDS IDENTIFICATION**

Emergency Overview:  
Transparent dark amber fluid. Mild eye, skin, inhalation and ingestion irritant.

**SECTION 4**

**FIRST AID MEASURES**

CALL 1-303-623-5716 COLLECT

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops.  
Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.  
Inhalation: If respiratory irritation develops, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.  
Ingestion: **DO NOT INDUCE VOMITING.** Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

**SECTION 5 FIRE FIGHTING MEASURES**

Flashpoint / Method: > 300 Degrees F (149 Degrees C) / C.O.C.  
Flammability: LEL = Not available, UEL = Not available  
Extinguishing: Use dry chemical, CO2, or foam to extinguish fire. Do not use water as it may be ineffective as an extinguishing agent.  
Media:  
Special Fire: Firefighters should wear positive pressure self-contained  
Fighting: breathing apparatus and full protective clothing for fires in  
Procedure: areas where chemicals are used or stored  
Unusual Fire and  
Explosion  
Hazards: None  
Hazardous  
Decomposition  
Products: Combustion will produce toxic and irritating vapors including oxides of carbon, phosphorus, sulfur, smoke, hydrogen chloride, and hydrogen sulfide.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Spill or: Remove all sources of ignition and ventilate area. Contain spill, stop  
Leak: source of leak, pump spilled material into salvage container, soak up  
Procedures: remaining material with absorbent such as sand or clay. Prevent product from entering potable or natural water systems. Put absorbent material in covered, labeled metal containers. Report releases to authorities as required. See Section 13 for disposal information.

**SECTION 7 HANDLING AND STORAGE**

Handling: Avoid prolonged and repeated skin contact. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use. Launder contaminated clothing before reuse.  
Storage: Store in a cool, dry, well-ventilated area away from incompatible materials. Store away from direct heat source and strong oxidizing agents. Keep containers closed when not in use.  
Other: Do not pressurize, cut, weld, braze, drill, grind or heat empty containers as some flammable, hazardous or combustible residue may be present. Avoid breathing mist. For industrial use only.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Ventilation: General mechanical ventilation is usually adequate under normal conditions of use. Use local ventilation if necessary to maintain oil mist below PEL/TLV.  
Respiratory Protection: For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice.  
Skin Protection: Oil/Chemical resistant gloves such as neoprene or nitrile.  
Eye Protection: Safety glasses with side shields or chemical splash goggles if necessary.

SECTION 8: Continued

Other: Eye wash and safety shower should be available. Other such as protective apron as necessary to prevent prolonged skin contact.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point: > 500 Degrees F / 260 Degrees C  
Melting Point: Not applicable  
Vapor Pressure: < 0.1 mm Hg at 20 degrees C  
Vapor Density: > 1.0 (Air = 1.0)  
Volatile Components: Negligible  
Solubility In Water: Negligible  
pH: Not applicable  
Specific Gravity: 0.90 - 0.95 (Water = 1.0)  
Evaporation Rate: Negligible (BUAC = 1.0)  
Appearance: Transparent dark amber oily fluid  
Odor: Mild petroleum  
Will Dissolve In: Oil and organic solvents  
Material Is: Liquid

**SECTION 10 STABILITY AND REACTIVITY**

Stability: Stable.  
Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.  
Hazardous  
Decomposition  
Products: Combustion will produce toxic and irritating vapors including oxides of carbon, phosphorus, sulfur, smoke, hydrogen chloride, and hydrogen sulfide.  
Incompatibility/  
Materials To Avoid: Avoid contact with strong oxidizers.  
Hazardous Will not occur.  
Polymerization:

**SECTION 11 TOXICOLOGICAL INFORMATION**

Inhalation: Excessive exposure to mist may irritate respiratory tract.  
Skin: May cause irritation.  
Eye: May cause irritation.  
Ingestion: May irritate gastrointestinal tract.  
Chronic Prolonged continued skin contact may cause dermatitis, mist may  
Toxicity: irritate respiratory tract.  
Toxicity Data: Not available  
Sensitization: None of the components are known to cause sensitization.  
Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA.  
Mutagenicity: Not available  
Reproductive  
Toxicity: Not available  
Medical  
Conditions  
Aggravated By  
Exposure: Persons with pre-existing skin or lung disorders may be at increased risk from exposure to this product.

**SECTION 12 ECOLOGICAL INFORMATION**

VOC

Information: None

VOC Level: Not established

**SECTION 13 DISPOSAL CONSIDERATIONS**

Waste Disposal: Dispose in accordance with current local, state and federal regulations.

RCRA Hazardous Waste Number: Not applicable

EPA Hazardous Waste ID Number: Not applicable

EPA Hazard Waste Class: Not applicable

**SECTION 14 TRANSPORT INFORMATION**

DOT

Proper Shipping Name: Not applicable

Hazard Class/Packing Group: Not applicable

UN/NA Number: Not applicable

Hazard Labels: Not applicable

IMDG

Proper Shipping Name: Not applicable

Hazard Class/Packing Group: Not applicable

UN Number: Not applicable

Label: Not applicable

2004 North American Emergency Response Guidebook Number: None

**SECTION 15 REGULATORY INFORMATION**

Hazard Category for Section 311/312: None

Section 302 Extremely Hazardous Substances (TPQ):

This product does not contain chemicals regulated under SARA Section 302.

Section 313 Toxic Chemicals: This product contains no chemicals subject to SARA Title III Section 313 Reporting requirements.

CERCLA 103 Reportable: None

California Proposition 65: This product is not known to contain any chemicals subject to California Proposition 65 regulation.

TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

Canadian WHMIS Classification: D2B. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**SECTION 16 OTHER INFORMATION**

NFPA and HMIS:

NFPA Hazard Signal: Health: 1 Flammability: 1 Reactivity: 0 Special: None

HMIS Hazard Signal: Health: 1 Flammability: 1 Reactivity: 0 PPE: B

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, Oatey cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

**MATERIAL SAFETY DATA SHEET**

**SECTION 1**

**PRODUCT AND COMPANY IDENTIFICATION**

Trade Name: OATEY DARK THREAD CUTTING OIL  
Product Use: Oil for pipe cutting and threading  
Formula: Petroleum Distillates mixture  
Synonyms: Thread cutting oil  
Firm Name & Mailing Address: OATEY CO. 4700 West 160th Street P.O. Box 35906 Cleveland, Ohio 44135, U.S.A. <http://www.oatey.com>  
Oatey Phone Number: (216) 267-7100 or (800) 321-9532  
Emergency Phone Numbers: For Emergency First Aid call 1-303-623-5716 COLLECT. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.  
Prepared By: Corporate Director - Safety and Environmental Compliance  
Preparation Date: July 27, 2005

**SECTION 2**

**COMPOSITION/INFORMATION ON INGREDIENTS**

<u>INGREDIENTS:</u>	<u>%wt/wt:</u>	<u>CAS NUMBER:</u>	<u>ACGIH TLV TWA:</u>	<u>OSHA PEL TWA:</u>	<u>OTHER:</u>
Petroleum distillates	90%, max.	69029-75-0	5mg/m3	5mg/m3	STEL: 10mg/m3
Petroleum distillates	25%, max.	69029-75-0	5mg/m3	5mg/m3	STEL: 10mg/m3
Sulfur additive	10%, max.	68153-70-8	None	None	None
Chlorinated paraffin	5%, max.	63449-39-8	None	None	None

OSHA Hazard Classification: Irritant.

**SECTION 3**

**HAZARDS IDENTIFICATION**

Emergency Overview:  
Transparent dark amber fluid. Mild eye, skin, inhalation and ingestion irritant.

**SECTION 4**

**FIRST AID MEASURES**

CALL 1-303-623-5716 COLLECT

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops.  
Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.  
Inhalation: If respiratory irritation develops, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.  
Ingestion: **DO NOT INDUCE VOMITING.** Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

**SECTION 5 FIRE FIGHTING MEASURES**

Flashpoint / Method: > 300 Degrees F (149 Degrees C) / C.O.C.  
Flammability: LEL = Not available, UEL = Not available  
Extinguishing: Use dry chemical, CO2, or foam to extinguish fire. Do not use water as it may be ineffective as an extinguishing agent.  
Media:  
Special Fire: Firefighters should wear positive pressure self-contained  
Fighting: breathing apparatus and full protective clothing for fires in  
Procedure: areas where chemicals are used or stored  
Unusual Fire and  
Explosion  
Hazards: None  
Hazardous  
Decomposition  
Products: Combustion will produce toxic and irritating vapors including oxides of carbon, phosphorus, sulfur, smoke, hydrogen chloride, and hydrogen sulfide.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Spill or: Remove all sources of ignition and ventilate area. Contain spill, stop  
Leak: source of leak, pump spilled material into salvage container, soak up  
Procedures: remaining material with absorbent such as sand or clay. Prevent product from entering potable or natural water systems. Put absorbent material in covered, labeled metal containers. Report releases to authorities as required. See Section 13 for disposal information.

**SECTION 7 HANDLING AND STORAGE**

Handling: Avoid prolonged and repeated skin contact. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use. Launder contaminated clothing before reuse.  
Storage: Store in a cool, dry, well-ventilated area away from incompatible materials. Store away from direct heat source and strong oxidizing agents. Keep containers closed when not in use.  
Other: Do not pressurize, cut, weld, braze, drill, grind or heat empty containers as some flammable, hazardous or combustible residue may be present. Avoid breathing mist. For industrial use only.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Ventilation: General mechanical ventilation is usually adequate under normal conditions of use. Use local ventilation if necessary to maintain oil mist below PEL/TLV.  
Respiratory Protection: For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice.  
Skin Protection: Oil/Chemical resistant gloves such as neoprene or nitrile.  
Eye Protection: Safety glasses with side shields or chemical splash goggles if necessary.

SECTION 8: Continued

Other: Eye wash and safety shower should be available. Other such as protective apron as necessary to prevent prolonged skin contact.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point: > 500 Degrees F / 260 Degrees C  
Melting Point: Not applicable  
Vapor Pressure: < 0.1 mm Hg at 20 degrees C  
Vapor Density: > 1.0 (Air = 1.0)  
Volatile Components: Negligible  
Solubility In Water: Negligible  
pH: Not applicable  
Specific Gravity: 0.90 - 0.95 (Water = 1.0)  
Evaporation Rate: Negligible (BUAC = 1.0)  
Appearance: Transparent dark amber oily fluid  
Odor: Mild petroleum  
Will Dissolve In: Oil and organic solvents  
Material Is: Liquid

**SECTION 10 STABILITY AND REACTIVITY**

Stability: Stable.  
Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.  
Hazardous  
Decomposition  
Products: Combustion will produce toxic and irritating vapors including oxides of carbon, phosphorus, sulfur, smoke, hydrogen chloride, and hydrogen sulfide.  
Incompatibility/  
Materials To Avoid: Avoid contact with strong oxidizers.  
Hazardous Will not occur.  
Polymerization:

**SECTION 11 TOXICOLOGICAL INFORMATION**

Inhalation: Excessive exposure to mist may irritate respiratory tract.  
Skin: May cause irritation.  
Eye: May cause irritation.  
Ingestion: May irritate gastrointestinal tract.  
Chronic Prolonged continued skin contact may cause dermatitis, mist may  
Toxicity: irritate respiratory tract.  
Toxicity Data: Not available  
Sensitization: None of the components are known to cause sensitization.  
Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA.  
Mutagenicity: Not available  
Reproductive  
Toxicity: Not available  
Medical  
Conditions  
Aggravated By  
Exposure: Persons with pre-existing skin or lung disorders may be at increased risk from exposure to this product.



**SECTION 12 ECOLOGICAL INFORMATION**

VOC

Information: None

VOC Level: Not established

**SECTION 13 DISPOSAL CONSIDERATIONS**

Waste Disposal: Dispose in accordance with current local, state and federal regulations.

RCRA Hazardous Waste Number: Not applicable

EPA Hazardous Waste ID Number: Not applicable

EPA Hazard Waste Class: Not applicable

**SECTION 14 TRANSPORT INFORMATION**

DOT

Proper Shipping Name: Not applicable

Hazard Class/Packing Group: Not applicable

UN/NA Number: Not applicable

Hazard Labels: Not applicable

IMDG

Proper Shipping Name: Not applicable

Hazard Class/Packing Group: Not applicable

UN Number: Not applicable

Label: Not applicable

2004 North American Emergency Response Guidebook Number: None

**SECTION 15 REGULATORY INFORMATION**

Hazard Category for Section 311/312: None

Section 302 Extremely Hazardous Substances (TPQ):

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Section 313 Toxic Chemicals: This product contains no chemicals subject to SARA Title III Section 313 Reporting requirements.

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**SECTION 16 OTHER INFORMATION**

NFPA and HMIS:

NFPA Hazard Signal: Health: 1 Flammability: 1 Reactivity: 0 Special: None

HMIS Hazard Signal: Health: 1 Flammability: 1 Reactivity: 0 PPE: B

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## MATERIAL SAFETY DATA SHEET

(CONFORMS TO OSHA HAZARDOUS COMMUNICATIONS D)

### GOOP HAND CLEANER

CRITZAS INDUSTRIES, INC.  
4041 Park Avenue  
St. Louis, Missouri 63110  
Emergency: (314) 773-8510

Ingredients: Isoparafins, water, surfactants, glycerin, lanolin, fragrance, antioxidant.

---

**HAZARDOUS INGREDIENTS:** None

---

### PHYSICAL CHARACTERISTICS

Boiling Point: 212° F

Appearance and Odor:  
Creamy White Soft Solid,  
Pleasant Odor

Freezing Point: 10° F

Vapor Density: <1

Evaporation Rate (butyl acetate = 1): >1

Solubility in Water: Completely  
dispersable

pH: 8.0 to 9.0

Specific Gravity (water = 1): 0.90 g/cc

Percent Volatile by Volume: 85

---

### FIRE AND EXPLOSION HAZARD DATA

Flash Point: >200° F

Stability: Stable

Specific Fire Fighting Procedures: None

Extinguishing Media: Water spray, fog, carbon dioxide, dry chemical, alcohol-type or universal-type foams applied by manufacturer's recommended technique.

---

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## REACTIVITY DATA

Materials to Avoid: Strong oxidizers, ketones, nitric and sulfuric acids, halogens and halogen compounds.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide.

---

## HEALTH HAZARD DATA

Eye Contact: Immediately flush eyes with large quantities of water for at least a 15 minute period, periodically lifting upper and lower lids to ensure washing of entire surface. Get medical attention if irritation persists.

Skin Contact: Wash exposed areas with soap and water. If irritation persists, get medical attention.

Ingestion: DO NOT INDUCE VOMITING. Seek medical attention immediately. Give large quantities of water. If available, give several glasses of milk or acidic beverages (tomato or orange juice, carbonated soft drinks). Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

---

## PRECAUTIONS FOR SAFE HANDLING & USE

Do not store above 140° F or below 10° F

---

## CONTROL MEASURES

Health: 1

Flammability: 1

Reactivity: 0

Personal Protection: None

---

PREPARED BY:

DATE: January 21, 2003

SIGNATURE:



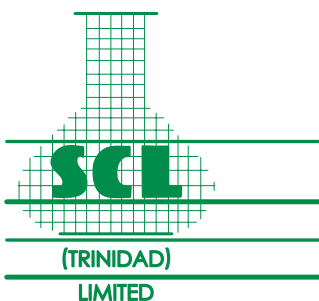
Robert E. Wann, Ph.D.  
Scientist

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1. (30105) 30 / 5 oz Tube Display Bucket
2. (57/59) 10½ oz Tube
3. (105) 5 oz Tube
4. (128) 28 oz Can
5. (150) .35 oz Packette
6. (23) 3 lb Can
7. (455) 4½ lb Pumice

8. (450) .35 oz Packette Pumice
9. (12) 14 oz Can
10. (456) 14 oz Pumice
11. (35) 16 fl oz Liquid Squeeze Bottle
12. (45) 1 gal Liquid
13. (102) Dispenser for 3 lb/4½ lb Cans
14. (64) 4½ lb Can
15. (425) 25 lb Pumice



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**MATHESON**

ask. . .The Gas Professionals™

## Safety Data Sheet

Material Name OXYGEN, COMPRESSED GAS

SDS ID: MAT12831

### \*\*\*Section 1 - IDENTIFICATION\*\*\*

**Product Identifier:** OXYGEN, COMPRESSED GAS

**Trade Names/Synonyms**

MTG MSDS 71; OXYGEN; DIOXYGEN; MOLECULAR OXYGEN; OXYGEN MOLECULE; PURE OXYGEN; UN 1072; LOX; HYPEROXIA; O2

**Chemical Family**

inorganic, gas

**Recommended Use**

industrial

**Restrictions on Use**

None known.

**Manufacturer Information**

MATHESON TRI-GAS, INC.  
150 Allen Road, Suite 302  
Basking Ridge, NJ 07920

General Information: 1-800-416-2505  
Emergency #: 1-800-424-9300 (CHEMTREC)  
Outside the US: 703-527-3887 (Call collect)

### \*\*\*Section 2 - HAZARDS IDENTIFICATION\*\*\*

**Classification in accordance with 29 CFR 1910.1200**

Oxidizing Gases, Category 1

Gas under pressure; Compressed Gas

**GHS LABEL ELEMENTS**

**Symbol(s)**



**Signal Word**

DANGER

**Hazard Statement(s)**

May cause or intensify fire; oxidizer

Contains gas under pressure; may explode if heated

**Precautionary Statement(s)**

**Prevention**

Keep away from clothing and other combustible materials. Keep reduction valves free from grease and oil.

**Response**

In case of fire: Stop leak if safe to do so.

**Storage**

Protect from sunlight. Store in a well-ventilated place.

# Safety Data Sheet

Material Name OXYGEN, COMPRESSED GAS

SDS ID: MAT12831

## Disposal

Dispose of in accordance with applicable regulations.

## Hazard(s) Not Otherwise Classified

May cause frostbite upon sudden release of compressed gas.

### \*\*\*Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS\*\*\*

CAS	Component	Percent
7782-44-7	OXYGEN, COMPRESSED GAS	100

### \*\*\*Section 4 - FIRST AID MEASURES\*\*\*

#### Description of Necessary Measures

##### Inhalation

If adverse effects occur, remove to uncontaminated area. Get medical attention.

##### Skin

If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

##### Eyes

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

##### Ingestion

If swallowed, get medical attention.

#### Most Important Symptoms/Effects

##### Acute

frostbite

##### Delayed

No information on significant adverse effects.

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

Treat symptomatically and supportively.

### \*\*\*Section 5 - FIRE FIGHTING MEASURES\*\*\*

#### Suitable Extinguishing Media

carbon dioxide, regular dry chemical  
Large fires: Use water spray, fog or regular foam.

#### Unsuitable Extinguishing Media

None known.

#### Specific Hazards Arising from the Chemical

Negligible fire hazard. Oxidizer. May ignite or explode on contact with combustible materials. Containers may rupture or explode if exposed to heat.

#### Hazardous Combustion Products

**Combustion:** miscellaneous decomposition products

# Safety Data Sheet

Material Name OXYGEN, COMPRESSED GAS

SDS ID: MAT12831

## Fire Fighting Measures

Move container from fire area if it can be done without risk. Do not direct water at source of leak or safety devices; icing may occur. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Use extinguishing agents appropriate for surrounding fire. Cool containers with water. Apply water from a protected location or from a safe distance.

## Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

## \*\*\*Section 6 - ACCIDENTAL RELEASE MEASURES\*\*\*

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

### Methods and Materials for Containment and Cleaning Up

Avoid contact with combustible materials. Do not touch or walk through spilled material. Stop leak if possible without personal risk. Do not direct water at spill or source of leak. Keep unnecessary people away, isolate hazard area and deny entry. Isolate area until gas has dispersed. Ventilate closed spaces before entering.

## \*\*\*Section 7 - HANDLING AND STORAGE\*\*\*

### Precautions for Safe Handling

Keep away from clothing and other combustible materials. Keep reduction valves free from grease and oil.

### Conditions for Safe Storage, including any Incompatibilities

Store in accordance with all current regulations and standards. Protect from sunlight. Store in a well-ventilated place. Protect from physical damage. Avoid heat, flames, sparks and other sources of ignition. Store in a clean, cool, dry place. Store below 52 °C. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

**Incompatibilities** combustible materials, halo carbons, metals, bases, reducing agents, amines, metal salts, oxidizing materials

## \*\*\*Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\*\*\*

### Component Exposure Limits

ACGIH, EU, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

### Component Biological Limit Values

There are no biological limit values for any of this product's components.

### Appropriate Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eyes/Face Protection

For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

#### Skin Protection

For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.

#### Glove Recommendations

Wear insulated gloves.

# Safety Data Sheet

Material Name OXYGEN, COMPRESSED GAS

SDS ID: MAT12831

## Respiratory Protection

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

Respiratory protection is ranked in order from minimum to maximum.

Consider warning properties before use.

### For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with a full facepiece that 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.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

## \*\*\*Section 9 - PHYSICAL AND CHEMICAL PROPERTIES\*\*\*

<b>Physical State:</b>	Gas	<b>Appearance:</b>	colorless gas
<b>Color:</b>	colorless	<b>Physical Form:</b>	gas
<b>Odor:</b>	odorless	<b>Odor Threshold:</b>	Not available
<b>Taste:</b>	tasteless	<b>pH:</b>	Not available
<b>Melting/Freezing Point:</b>	-218.4 °C	<b>Boiling Point:</b>	-182.96 °C
<b>Flash Point:</b>	non-flammable	<b>Decomposition:</b>	Not available
<b>Evaporation Rate:</b>	Not available	<b>LEL:</b>	Not available
<b>UEL:</b>	Not available	<b>Vapor Pressure:</b>	760 mmHg @ -183 °C
<b>Vapor Density (air = 1):</b>	1.43	<b>Density:</b>	1.309 g/L @ 25 °C
<b>Specific Gravity (water=1):</b>	1.14 @ -183 °C (liquid)	<b>Water Solubility:</b>	3.2 % @ 25 °C
<b>Log KOW:</b>	Not available	<b>Auto Ignition:</b>	Not available
<b>Viscosity:</b>	0.02075 cP @25 °C	<b>Molecular Weight:</b>	31.9988
<b>Molecular Formula:</b>	O <sub>2</sub>		

## Other Property Information

No information available.

## Solvent Solubility

**Soluble:** alcohol

## \*\*\*Section 10 - STABILITY AND REACTIVITY\*\*\*

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable at normal temperatures and pressure.

### Possibility of Hazardous Reactions

Will not polymerize.

### Conditions to Avoid

Avoid contact with combustible materials. Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.

### Incompatible Materials

combustible materials, halo carbons, metals, bases, reducing agents, amines, metal salts, oxidizing materials

### Hazardous Decomposition

**Combustion:** miscellaneous decomposition products



# Safety Data Sheet

Material Name OXYGEN, COMPRESSED GAS

SDS ID: MAT12831

## \*\*\*Section 11 - TOXICOLOGICAL INFORMATION\*\*\*

### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

#### RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

### Information on Likely Routes of Exposure

#### Inhalation

irritation, changes in body temperature, nausea, difficulty breathing, irregular heartbeat, chest pain, lung damage, dizziness, disorientation, hallucinations, mood swings, pain in extremities, tremors, lung congestion, convulsions

#### Ingestion

no information on significant adverse effects

#### Skin Contact

no information on significant adverse effects

#### Eye Contact

irritation, blurred vision

#### Immediate Effects

frostbite

#### Delayed Effects

No information on significant adverse effects.

#### Medical Conditions Aggravated by Exposure

No data available.

#### Irritation/Corrosivity Data

No data available.

#### RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

#### Respiratory Sensitization

No data available.

#### Dermal Sensitization

No data available.

#### Carcinogenicity

#### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

#### Mutagenic Data

No data available.

#### RTECS Mutagenic

The components of this material have been reviewed, and RTECS publishes data for one or more components.

#### Reproductive Effects Data

No data available.

# Safety Data Sheet

Material Name **OXYGEN, COMPRESSED GAS**

SDS ID: MAT12831

## RTECS Reproductive Effects

The components of this material have been reviewed, and RTECS publishes the following endpoints:

### **OXYGEN, COMPRESSED GAS (7782-44-7)**

10 pph Inhalation Mouse TCLo (24 hour, pregnant 8 day(s)); 10 pph Inhalation Rat TCLo (12 hour, pregnant 22 day(s)); 10 pph Inhalation Rat TCLo (9 hour, pregnant 22 day(s)); 12 pph Inhalation Woman TCLo (10 minute(s), pregnant 26-39 week)

## Tumorigenic Data

No test data available.

## RTECS Tumorigenic

The components of this material have been reviewed, and RTECS publishes data for one or more components.

## Specific Target Organ Toxicity - Single Exposure

No data available.

## Specific Target Organ Toxicity - Repeated Exposure

No data available.

## Aspiration Hazard

Not expected to be an aspiration hazard.

## \*\*\*Section 12 - ECOLOGICAL INFORMATION\*\*\*

### Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

### Persistence and Degradability

No data available.

### Bioaccumulative Potential

No data available.

### Mobility

No data available.

## \*\*\*Section 13 - DISPOSAL CONSIDERATIONS\*\*\*

### Disposal Methods

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262.  
Hazardous Waste Number(s): D001.

### Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

## \*\*\*Section 14 - TRANSPORT INFORMATION\*\*\*

### US DOT Information

**Shipping Name:** Oxygen, compressed

**UN/NA #:** UN1072 **Hazard Class:** 2.2

**Required Label(s):** 2.2, 5.1

### IMDG Information

**Shipping Name:** Oxygen, compressed

**UN #:** UN1072 **Hazard Class:** 2.2

**Required Label(s):** 2.2, 5.1

# Safety Data Sheet

Material Name OXYGEN, COMPRESSED GAS

SDS ID: MAT12831

## \*\*\*Section 15 - REGULATORY INFORMATION\*\*\*

### Component Analysis

#### U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

#### SARA 311/312 Hazardous Categories

Acute Health: Yes Chronic Health: No Fire: Yes Pressure: Yes Reactive: No

#### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
OXYGEN, COMPRESSED GAS	7782-44-7	No	Yes	No	Yes	Yes

Not regulated under California Proposition 65

#### Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
OXYGEN, COMPRESSED GAS	7782-44-7	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes

## \*\*\*Section 16 - OTHER INFORMATION\*\*\*

NFPA Ratings: Health: 0 Fire: 0 Reactivity: 0 Other: Oxidizer

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

#### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

# Safety Data Sheet

**Material Name OXYGEN, COMPRESSED GAS**

**SDS ID: MAT12831**

## Other Information

Matheson Tri-Gas, Inc. makes no express or implied warranties, guarantees or representations regarding the product or the information herein, including but not limited to any implied warranty or merchantability or fitness for use. Matheson Tri-Gas, Inc. shall not be liable for any personal injury, property or other damages of any nature, whether compensatory, consequential, exemplary, or otherwise, resulting from any publication, use or reliance upon the information herein.

End of Sheet MAT12831

## (Material) Safety Data Sheet



### Section 1 - Product and Company Identification

<b>Material Name</b>	▪ <b>PAM Original</b>
<b>Chemical Category</b>	▪ PREDOMINANTLY TRIGLYCERIDES
<b>Product Code</b>	▪ 6414403032/ML 1-99
<b>Chemical Category</b>	▪ Nuisance particulates
<b>Product Description</b>	▪ An oil based cooking spray. Clear to light yellow.
<b>Product Use</b>	▪ Cooking Spray. Food Product.
<b>Manufacturer</b>	▪ ConAgra Foods® 7350 World Communication Dr. Omaha, NE 68122 United States www.conagrafoods.com
<b>Telephone</b>	
<b><u>Emergency</u></b>	▪ 1-800-424-9300 - CHEMTREC
<b>General</b>	▪ Customer Service - Call your ConAgra Foods' Customer Service Representative
<b>Preparation Date</b>	▪ 8/3/2010
<b>Last Revision Date</b>	▪ 8/3/2010

### Section 2 - Hazards Identification

#### Emergency Overview

##### **DANGER**

Causes eye irritation. Causes mild skin irritation. Extremely flammable aerosol.

<b>Prevention</b>	Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.
<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 advice/attention. IF ON SKIN: Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

**Storage/Disposal** Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.



***Use only as directed. Deliberately concentrating and inhaling the contents can be harmful or fatal. For more education about product abuse, contact the Alliance for Consumer Education at [www.consumered.org](http://www.consumered.org). Contents under pressure. Do not expose to temperatures above***

**120 degrees Farenheit. Do not puncture or incinerate can. Keep out of the reach of children.  
Choking hazard, cap contains small parts.**

**Physical Form**

**Color**

**Odor**

**Flash Point**

**UEL**

**LEL**

**OSHA**

**WHMIS**

- Aerosol
- Clear to light yellow.
- Odorless
- -100 F(-73.3333 C)
- 9.5 %
- 1.9 %
- Flammable Aerosol
- Class B - Flammable and Combustible Materials - Division 5



**EU**

- Extremely Flammable - F+  
R12



**GHS**

- Flammable Aerosols - Category 1, Skin Corrosion/Irritation - Category 3, Serious Eye Damage, Eye Irritation - Category 2B

**Route Of Entry**

**Target Organs**

**Medical Conditions**

**Aggravated by Exposure**

- Inhalation, Skin, Eye
- Central Nervous System (CNS), Heart/Cardiovascular System
- None Known,

**NFPA:**



**Potential Health Effects**

**Inhalation**

**Acute (Immediate)**

- Possible irritant under conditions of occupational exposure. High concentrations of the propellant may cause a deficiency of oxygen with a risk of unconsciousness as well as central nervous system depression. Symptoms may include dizziness and headache. Cardiac and neurological effects can occur due to acute overdose of this product resulting in impaired memory, slurred speech, seizure, or death from cardiac arrhythmias. NOTE: Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

**Chronic (Delayed)**

- Under normal conditions of use, no chronic effects are expected. This product contains propane and butane which are known to cause central nervous system depression and cardiovascular symptoms.

**Skin**

**Acute (Immediate)**

**Chronic (Delayed)**

- Possible irritant under conditions of occupational exposure.
- Under normal conditions of use, no chronic effects are expected.

**Eye**

**Acute (Immediate)**

**Chronic (Delayed)**

- Possible irritant under conditions of occupational exposure. If sprayed directly into eye severe irritation may occur.
- Under normal conditions of use, no chronic effects are expected.

## Ingestion

### Acute (Immediate)

- No effects are expected.

### Chronic (Delayed)

- No effects are expected.

See Section 12 for Ecological Information.

## Section 3 - Composition/Information on Ingredients

Hazardous Components						
Chemical Name	CAS	%(weight)	UN;EINECS	LD50/LC50	EU Classification & R Phrases	Other
Petroleum gas (liquefied)	68476-85-7	10% TO 18%	270-704-2	NDA	F+; R12 Carc.Cat.1; R45 Muta.Cat.2; R46	NDA
Propane	74-98-6	> 7%	UN1978, 200-827-9	NDA	F+; R12	NDA
Propane, 2-methyl-	75-28-5	> 7%	UN1969, 200-857-2	Inhalation-Rat LC50: =57 pph/15 Minute(s)	F+; R12	NDA
Butane	106-97-8	< 1%	UN1011, 203-448-7	Inhalation-Rat LC50: =658 g/m <sup>3</sup> /4 Hour(s)	F+; R12	NDA
Non-Hazardous Components						
Chemical Name	CAS	%(weight)	UN;EINECS	LD50/LC50	EU Classification & R Phrases	Other
Canola Oil	120962-03-0	70% TO 85%			NDA	NDA
Soy Lecithin	8002-43-5	2% TO 8%	232-307-2	NDA	NDA	NDA

See Section 11 for Toxicological Information.

## Section 4 - First Aid Measures

### Inhalation

- If victim is unconscious or intentional abuse of the product is suspected, seek medical attention at once.

### Skin

- If skin irritation occurs: get medical advice/attention.

### Eye

- 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.

### Ingestion

- Not applicable, product is intended for ingestion.

See Section 2 for Potential Health Effects.

## Section 5 - Fire Fighting Measures

### Extinguishing Media

- SMALL FIRES: Dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam.  
LARGE FIRES: Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.

### Unsuitable Extinguishing Media

- None known.

### Firefighting Procedures

- Keep unauthorized personnel away.  
As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.  
Fire fighters should wear complete protective clothing including self-contained breathing apparatus.  
FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: For massive fire, use

unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

FIRE INVOLVING TANKS AND CAR/TRAILER LOADS: ALWAYS stay away from tanks engulfed in fire.

LARGE FIRES: Dike fire-control water for later disposal.

LARGE FIRES: Move containers from fire area if you can do it without risk.

#### **Unusual Fire and Explosion Hazards**

- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames. Oily rags may appear to spontaneously combust with very minimal sources of ignition. Thus, caution is required when such rags are stored and even away from any apparent ignition source. Containers generate pressure when heated and could cause bursting and dangerous propelling.

#### **Hazardous Combustion Products**

- Oxides of carbon.

#### **Protection of Firefighters**

- Wear positive pressure self-contained breathing apparatus (SCBA) Structural firefighters' protective clothing will only provide limited protection.

#### **Flash Point**

- -100 F(-73.3333 C)

#### **Explosion Limits**

##### **Upper**

- 9.5

##### **Lower**

- 1.9

### **Section 6 - Accidental Release Measures**

#### **Personal Precautions**

- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate enclosed areas.

#### **Emergency Procedures**

- **ELIMINATE** all ignition sources (no smoking, flares, sparks or flames in immediate area) As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.

#### **Environmental Precautions**

- Prevent entry into waterways, sewers, basements or confined areas.

#### **Containment/Clean-up Measures**

- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

#### **Prohibited Materials**

- None known.

### **Section 7 - Handling and Storage**

#### **Handling**

- Do not use in areas without adequate ventilation. Take precaution to prevent slips and falls in and around areas of repeated use where drift of aerosolized oil may occur. Keep away from heat and sparks. In case of accidental puncturing with forklift, shut off lift and ignition sources and ventilate area.

#### **Storage**

- Store below 120 F. Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources.

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

#### **Personal Protective Equipment**

##### **Respiratory**

- None required for normal handling.

##### **Eye/Face**

- None required for normal handling.

##### **Hands**

- None required for normal handling.

##### **Skin/Body**

- None required for normal handling.

##### **Additional PPE**

- Wear slip resistant shoes where oil mist accumulates.

#### **Engineering Measures/Controls**

- Use adequate ventilation to remove vapors (fumes, dust, etc). Use local exhaust for small enclosed work areas.



Exposure Limits/Guidelines						
	Result	ACGIH	Mexico	NIOSH	OSHA	United States - California
PAM Original	TWAs	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended)  <i>as Particulates not otherwise classified (PNOC)</i>	Not established	Not established	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)  <i>as Particulates not otherwise classified (PNOC)</i>	10 mg/m3 PEL (total dust); 5 mg/m3 PEL (respirable fraction)  <i>as Particulates not otherwise classified (PNOC)</i>
Butane (106-97-8)	TWAs	1000 ppm TWA	800 ppm TWA; 1900 mg/m3 TWA	800 ppm TWA; 1900 mg/m3 TWA	Not established	800 ppm PEL; 1900 mg/m3 PEL
Propane (74-98-6)	TWAs	1000 ppm TWA	Not established	1000 ppm TWA; 1800 mg/m3 TWA	1000 ppm TWA; 1800 mg/m3 TWA	1000 ppm PEL; 1800 mg/m3 PEL
Propane, 2-methyl- (75-28-5)	TWAs	1000 ppm TWA	Not established	800 ppm TWA; 1900 mg/m3 TWA	Not established	Not established
Petroleum gas (liquefied) (68476-85-7)	STELs	Not established	1250 ppm STEL; 2250 mg/m3 STEL	Not established	Not established	Not established
	TWAs	1000 ppm TWA	1000 ppm TWA; 1800 mg/m3 TWA	1000 ppm TWA; 1800 mg/m3 TWA	1000 ppm TWA; 1800 mg/m3 TWA	1000 ppm PEL; 1800 mg/m3 PEL

## Exposure Limits Supplemental

### ACGIH

- Propane, 2-methyl- (75-28-5): **TLV Basis - Critical Effects:** (cardiac sensitization; CNS impairment)
- Petroleum gas (liquefied) (68476-85-7): **TLV Basis - Critical Effects:** (cardiac sensitization; CNS impairment)
- Propane (74-98-6): **TLV Basis - Critical Effects:** (cardiac sensitization; CNS impairment)
- Butane (106-97-8): **TLV Basis - Critical Effects:** (cardiac sensitization; CNS impairment)

## Section 9 - Physical and Chemical Properties

### Physical Form

- Aerosol

### Appearance/Description

- Clear to light yellow liquid with no odor.

Color : Clear to light yellow.		Odor : Odorless	
Taste : Light oily taste. No data available.		Odor Threshold : NDA	
Boiling Point:	NDA	Vapor Pressure:	3397 mmHg (torr)
Melting Point:	NDA	Vapor Density:	> 1 Air=1
Specific Gravity:	0.823	Evaporation Rate:	> 1 n-Butyl Acetate = 1
Density:	6.8679 lbs/gal	VOC (Wt.):	NDA
Bulk Density:	NDA	VOC (Vol.):	NDA
Water Solubility:	Slightly Soluble	Volatiles (Wt.):	NDA
Solvent Solubility:	NDA	Volatiles (Vol.):	NDA
Viscosity:	NDA	Flash Point:	-100 F(-73.3333 C)
Half-Life:	NDA	Flash Point Test Type:	NDA
Octanol/Water Partition coefficient:	NDA	UEL:	9.5 %
Coefficient of Water:	NDA	LEL:	1.9 %
Bioaccumulation Factor:	NDA	Autoignition:	NDA
pH:	NDA		

## Section 10 - Stability and Reactivity

<b>Stability</b>	▪ Stable under normal temperatures and pressures.
<b>Hazardous Polymerization</b>	▪ Hazardous polymerization will not occur.
<b>Conditions to Avoid</b>	▪ Store below 120 F.
<b>Incompatible Materials</b>	▪ Incompatible Materials: Easily oxidizable materials
<b>Hazardous Decomposition Products</b>	▪ Oxides of carbon.

## Section 11 - Toxicological Information

**Material Information**      ■ No data available on the material as a whole.

Component Name	Concentration	CAS	Data
Soy Lecithin	2% TO 8%	8002-43-5	<b>Acute Toxicity:</b> orl-rat LD :>8 mL/kg
Propane, 2-methyl-	> 7%	75-28-5	<b>Acute Toxicity:</b> ihl-rat LC50:658000 mg/m3/4H
Butane	< 1%	106-97-8	<b>Acute Toxicity:</b> ihl-rat LC50:658 gm/m3/4H

## Section 12 - Ecological Information

<b>Ecological Fate</b>	▪ Product has not been studied as distributed.
<b>Persistence/Degradability</b>	▪ Product has not been studied as distributed.
<b>Bioaccumulation Potential</b>	▪ Product has not been studied as distributed.
<b>Mobility in Soil</b>	▪ Product has not been studied as distributed.

## Section 13 - Disposal Considerations

<b>Product</b>	<ul style="list-style-type: none"> <li>Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.</li> </ul>
----------------	---

## Section 14 - Transportation Information

DOT Special Permit DOT SP 11458. Material is packaged as a consumer product(ORM-D).

DOT - United States - Department of Transportation

**Shipping Name:** Consumer commodity

**Hazard Class:** ORM-D

## TDG - Canada - Transport of Dangerous Goods

**Shipping Name:** AEROSOLS, flammable

ID Number: UN1950

**Hazard Class: 2.1**

**Labeling Class: 2.1**

**Marine Pollutant:** Potential Marine Pollutant

### Passenger Carrying Road Vehicle or Passenger Carrying Railway

**Vehicle Index: 75.00**

## Section 15 - Regulatory Information

**SARA Hazard Classifications**    ▪ Acute, Fire, Pressure(Sudden Release of)

Inventory				
Component	CAS	Canada DSL	Canada NDSL	TSCA
Canola Oil	120962-03-0	Yes	No	Yes
Soy Lecithin	8002-43-5	Yes	No	Yes
Petroleum gas (liquefied)	68476-85-7	Yes	No	Yes
Propane	74-98-6	Yes	No	Yes
Propane, 2-methyl-	75-28-5	Yes	No	Yes
Butane	106-97-8	Yes	No	Yes

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

- Propane, 2-methyl- 75-28-5 > 7% A, B1
- Petroleum gas (liquefied) 68476-85-7 10% TO 18% A, B1
- Propane 74-98-6 > 7% A, B1
- Butane 106-97-8 < 1% A, B1

#### Canada - WHMIS - Ingredient Disclosure List

- Butane 106-97-8 < 1% 1 %

## Mexico

### Other

#### Mexico - Hazard Classifications

- Propane, 2-methyl- 75-28-5 > 7% Class = 2.1
- Propane 74-98-6 > 7% Class = 2.1
- Butane 106-97-8 < 1% Class = 2.1

#### Mexico - Regulated Substances

- Propane, 2-methyl- 75-28-5 > 7% UN1969
- Propane 74-98-6 > 7% UN1978
- Butane 106-97-8 < 1% UN1011

## United States

### Environment

#### U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Flammable Substances

- Propane, 2-methyl- 75-28-5 > 7% 10000 lbs threshold quantity
- Propane 74-98-6 > 7% 10000 lbs threshold quantity
- Butane 106-97-8 < 1% 10000 lbs threshold quantity

### Other

#### U.S. - FDA - Substances Prohibited from Use in Human Food

None Listed

## Section 16 - Other Information

**Prepared By**  
**Preparation Date**  
**Last Revision Date**  
**Disclaimer/Statement of Liability**

- Plagge, Bogen, Mundy
- 8/3/2010
- 8/3/2010
- The following MSDSs are provided as a courtesy to ConAgra Foods customers. The information provided herein is provided in good faith but no warranty, expressed or implied, regarding its correctness or accuracy is made. Since the conditions for use, handling, storage, and disposal of this product are beyond ConAgra Foods' control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the improper use of this product. No warranty, expressed or implied, regarding the product described herein shall be created by or inferred from any statement or omission in this MSDS. ConAgra Foods disclaims all liability for your use and reliance on any MSDS. Various Governmental agencies (e.g. DOT, OSHA, EPA, FDA) may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.



Fisher Science Education  
6771 Silver Crest Road, Nazareth, PA 18064 (800) 955-1177  
Emergency Number: (800) 255-3924

## **Material Safety Data Sheet**

### **Section 1 – Chemical Product and Company Identification**

Catalog Numbers: S25646  
Product Identity: Paraffin Wax

**Chemical Family:** Not Applicable  
**Synonyms:** No information available  
**Recommended Use:** Laboratory chemicals

Manufacturer's Name: AquaPhoenix Scientific, Inc., 9 Barnhart Dr., Hanover, PA 17331  
Emergency Contact Number (24hr): Chemtel (800) 255-3924

Issue Date: 08/27/12  
Revision Date:

### **Section 2 – Hazard Identification**

Emergency Overview  
May cause eye, skin, respiratory system irritation. Combustible solid. Wax does not always smoke before it ignites. If melting wax use a thermometer  
**Appearance:** White translucent **Odor:** Odorless  
**Target Organs:** None known  
**Potential Health Effects/ Routes of Exposure:**  
**Eyes:** May cause irritation.  
**Skin:** May cause irritation.  
**Ingestion:** May cause irritation  
**Inhalation:** May cause irritation to the respiratory tract  
**Chronic Effect / Carcinogenicity:** None (IARC, NTP, OSHA)  
**Aggravated Medical Conditions** No information available  
These chemicals are not considered hazardous by OSHA.  
See section 11 for toxicological information. See section 12 for potential environmental effects.

### **Section 3 –Composition, Information on Ingredients**

Paraffin Wax, CAS# 8002-74-2

### **Section 4 – First Aid**

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.  
**Skin:** Flush with water for 15 minutes. Get medical assistance if irritation develops.  
**Ingestion:** Dilute with water or milk. Get medical assistance.  
**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.  
**Notes to Physician** Treat symptomatically.

### **Section 5 – Fire Fighting Measures**

**Flash Point:** Not Applicable **Autoignition Temperature** Not Applicable

**Explosion Limits Upper** Not Applicable      **Lower** Not Applicable  
**Extinguishing Media:** Use water spray, dry chemical, alcohol-resistant foam, or carbon dioxide  
**Unsuitable Extinguishing Media:** No information available  
**Fire & Explosion Hazards:** Not considered to be a fire or explosion hazard.  
**Fire Fighting Instructions / Equipment:** Use normal procedures. Use protective clothing. Use NIOSH-approved breathing equipment.  
**Hazardous Combustion Products:** No information Available  
**Sensitivity to mechanical impact** No information available.  
**Sensitivity to static discharge** No information available.  
**Specific Hazards Arising from the Chemical:** Wax does not always smoke before it ignites.  
**NFPA Rating:** (estimated) Health: 1; Flammable: 1; Reactivity: 0

## **Section 6 – Accidental Release Measures**

**Personal Precautions** Use proper personal protective equipment. Avoid contact with skin, eyes and clothing.  
**Environmental Precautions** No information available  
**Methods for Containment and Clean Up** Absorb and containerize for disposal. Avoid generating dust. Always obey local regulations.

## **Section 7 – Handling and Storage**

**Handling:** Wash hands after handling. Avoid contact with skin and eyes.  
**Storage:** Protect from freezing and physical damage. Store in a cool, dry, well-ventilated area.

## **Section 8 – Exposure Controls, Personal Protection**

Paraffin Wax, CAS# 8002-74-2, ACGIH TLV: NA, OSHA PEL: NA  
**Engineering Measures/ General Hygiene:** Ensure adequate ventilation. Ensure eyewash and safety showers are available.  
**Personal Protection Equipment:** **Skin Protection:** Chemical resistant gloves.  
**Eye/Face Protection:** Safety Glasses or goggles. **Respiratory Protection:** Chemical fume hood is recommended. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations.

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

<b>Appearance/Physical State:</b> White translucent solid	
<b>Odor:</b> Odorless	<b>% Volatility:</b> No Information Available
<b>Boiling Point:</b> > autoignition temperature	<b>Specific Gravity:</b> 0.880-0.915
<b>Melting Point:</b> 50-57 C	<b>Vapor Pressure:</b> Not available
<b>Vapor Density:</b> Not available	<b>Flash Point:</b> Not Applicable
<b>Evaporation Rate:</b> Not available	<b>Coefficient of water/oil distribution:</b> Not Available
<b>pH:</b> Not available	<b>Odor Threshold:</b> Not Available
<b>Flammability:</b> No Information Available	<b>Decomposition Temperature:</b> Not available
<b>Solubility:</b> Insoluble	<b>Partition Coefficient n-octanol/water:</b> No data
available	
<b>Relative Density:</b> No Information Available	<b>Molecular Weight:</b> Not available

## **Section 10 – Stability and Reactivity**

**Chemical Stability:** Stable under normal conditions and use.  
**Conditions to Avoid:** Excess heat, and conditions which cause the wax to catch on fire.  
**Incompatible Materials:** No information available  
**Hazardous Decomposition Products:** No information available  
**Hazardous Polymerization:** Does not occur  
**Hazardous Reactions:** None under normal processing.

## **Section 11 – Toxicological Information**

**Routes of Exposure/Symptoms/Corrosiveness** – See Section 2

LD50 orl-rat: 5000mg/kg

LC50 inhalation-rat: 42 g/m3/1h

**Irritation:** No Information Available

**Toxicologically Synergistic:** No Information Available

**Chronic Exposure**

**Carcinogenicity** There are no known carcinogenic chemicals in this product

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Reproductive Effects** No Information available.

**Developmental Effects (Immediate/Delayed)** No information available.

**Teratogenicity** No information available.

**Other Adverse Effects** No information available.

**Endocrine Disruptor Information** No information available

**Section 12 – Ecological Information**

**Ecotoxicity:** No information available

**Persistence and Degradability:** No Information Available

**Mobility:** No information available

**Bioaccumulation/ Accumulation:** No Information Available

**Section 13 – Disposal Considerations**

**Waste Disposal/Waste Disposal of Packaging:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**Section 14 – Transport Information**

**DOT – Not Regulated**

**Section 15 – Regulatory Information (not meant to be all inclusive)**

**OSHA Status:** These chemicals are not considered hazardous by OSHA.

**Canada DSL:** These chemicals are on Canada's DSL list.

**TSCA:** The components of this are listed on the TSCA Inventory

**SARA Title III Section 313:** Not Applicable

**RCRA Status:** Not Applicable

**CERCLA Reportable Quantity:** Not Applicable

**WHMIS:** Not controlled

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**Section 16 – Additional Information**

**Disclaimer:** The information on this MSDS 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. It is the user's responsibility to determine the suitability and completeness of this information for his own particular use. No warranty is implied regarding the accuracy of the data or the results to be obtained from the products use.



## SAFETY DATA SHEET

### Section 1: IDENTIFICATION

#### 1.1 PRODUCT IDENTIFIER

**Product Name:** PB Penetrating Catalyst (Aerosol)  
**Product Code:** 16-PB, 8-PB, 8-PBS, PBTS, 20-PB

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

**Use:** Lubricant

#### 1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

**Name/Address:** The Blaster Corporation  
8500 Sweet Valley Drive  
Valley View, Ohio 44125 – USA  
**Telephone Number:** T (216) 901-5800  
F (216) 901-5801

#### 1.4 EMERGENCY TELEPHONE NUMBER

**Emergency Telephone Number:** CHEMTREC: (800) 424-9300  
**Date of Preparation:** May 26, 2014 **Version #:** 1.0

### Section 2: HAZARD(S) IDENTIFICATION

#### 2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

##### Hazard class

Flammable Aerosol 2  
Gases Under Pressure (Dissolved Gas)  
Serious Eye Irritation 2A  
Carcinogenicity 2  
Aspiration Hazard 1

#### 2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

##### Hazard Pictogram:



**Signal Word:** Danger

**Hazard Statement:** Flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. Suspected of causing cancer. May be fatal if swallowed and enters airways.

**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. Wash hands thoroughly after handling. 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.





## SAFETY DATA SHEET

**Response:** If exposed or concerned: 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 eye irritation persists: Get medical advice/attention. If swallowed: Immediately call a poison center or doctor. Do NOT induce vomiting.

**Storage:** Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Store locked up.

**Disposal:** Dispose of contents and container in accordance with all local, regional, national and international regulations.

### 2.3 ADDITIONAL INFORMATION

**Hazards not otherwise classified:** Not applicable.

8 % of the mixture consists of ingredient(s) of unknown acute toxicity.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

**Mexico Classification:**



**Blue = Health   Red = Flammability   Yellow = Reactivity   White = Special**

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 MIXTURES

Ingredient	UN #	H / F / R / *	CAS No	Wt. %
Distillates (petroleum), hydrotreated light	Not available	Not available	64742-47-8	50 - 60
Solvent naphtha (petroleum), heavy aromatic	UN1270	Not available	64742-94-5	20 - 30
Distillates (petroleum), hydrotreated heavy naphthenic	Not available	Not available	64742-52-5	20 - 30
Carbon dioxide	UN1013	1/0/0	124-38-9	1 - 5
Naphthalene	UN1334/ UN2304	2/2/0	91-20-3	2 - 3
Dinonylphenol, ethoxylated, phosphated	Not available	Not available	39464-64-7	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.

\* Per NOM-018-STPS-2000



## SAFETY DATA SHEET

### Section 4: FIRST- AID MEASURES

#### 4.1 DESCRIPTION OF THE FIRST AID MEASURE

<b>Eye:</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
<b>Skin:</b>	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
<b>Inhalation:</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
<b>Ingestion:</b>	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

#### 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

<b>Eye:</b>	Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
<b>Skin:</b>	May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
<b>Inhalation:</b>	May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.
<b>Ingestion:</b>	May cause respiratory tract irritation.

#### 4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

<b>Note to Physicians:</b>	Symptoms may not appear immediately.
<b>Specific Treatments:</b>	In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

### Section 5: FIRE-FIGHTING MEASURES

#### 5.1 EXTINGUISHING MEDIA

<b>Suitable Extinguishing Media:</b>	Dry chemical, carbon dioxide or foam.
<b>Unsuitable Extinguishing Media:</b>	Water may be ineffective for extinguishing fire.

#### 5.2 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

<b>Products of Combustion:</b>	May include, and are not limited to: oxides of carbon, hydrocarbons.
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#### 5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water. Do not use a solid water stream as it may scatter and spread fire. Containers may explode when heated.



## SAFETY DATA SHEET

### Section 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

#### 6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

**Methods for Containment:** 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).

**Methods for Cleaning-Up:** Scoop up material and place in a disposal container. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Provide ventilation.

### Section 7: HANDLING AND STORAGE

#### 7.1 PRECAUTIONS FOR SAFE HANDLING

**Handling:** Keep away from sources of ignition. - No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. When using do not eat, drink or smoke. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Pressurized container: Do not pierce or burn, even after use. (See section 8)

**General Hygiene Advice:** Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

#### 7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

**Storage:** Keep locked up and out of reach of children. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in dry, cool, well-ventilated area. (See section 10)

### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 CONTROL PARAMETERS

##### Exposure Guidelines

Occupational Exposure Limits		
Ingredient	OSHA-PEL	ACGIH-TLV
Distillates (petroleum), hydrotreated light	100 ppm	200 mg/m <sup>3</sup>
Solvent naphtha (petroleum), heavy aromatic	Not available.	Not available.
Distillates (petroleum), hydrotreated heavy naphthenic	5 mg/m <sup>3</sup> (mist)	5 mg/m <sup>3</sup> (mist)
Carbon dioxide	5000 ppm; 9000 mg/m <sup>3</sup>	5000 ppm
Naphthalene	10 ppm; 50 mg/m <sup>3</sup>	10 ppm
Dinonylphenol, ethoxylated, phosphated	Not available.	Not available.



## SAFETY DATA SHEET

### 8.2 EXPOSURE CONTROLS

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

### 8.3 INDIVIDUAL PROTECTIVE MEASURES

#### Personal Protective Equipment:

**Eye/Face Protection:** Safety glasses with side-shields.

#### Skin Protection:

**Hand Protection:** Wear chemically resistant protective gloves.

**Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** A NIOSH approved respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. 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.

**General Health and Safety Measures:** 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. Ensure that eyewash stations and safety showers are close to the workstation location.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Viscous / Oily.
<b>Color:</b>	Orange.
<b>Odor:</b>	Heavy aromatic.
<b>Odor Threshold:</b>	Not available.
<b>Physical State:</b>	Gas/pressurized liquid.
<b>pH:</b>	Not available.
<b>Melting Point/Freezing Point:</b>	Not available.
<b>Initial Boiling Point and Boiling Range:</b>	177.8 °C (352 °F)
<b>Flash Point:</b>	65.6 °C (150 °F)
<b>Evaporation Rate:</b>	<1 (n-butyl acetate = 1)
<b>Flammability:</b>	Flammable.
<b>Lower Flammability/Explosive Limit:</b>	Not available.
<b>Upper Flammability/Explosive Limit:</b>	Not available.
<b>Vapor Pressure:</b>	Not available.
<b>Vapor Density:</b>	>1 (Air = 1)
<b>Relative Density/Specific Gravity:</b>	0.91 (Water = 1)
<b>Solubility:</b>	Negligible.



## SAFETY DATA SHEET

Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Oxidizing Properties:	Not available.
Explosive Properties:	Not available.
VOC Content:	< 25%
Flame Projection:	0 cm
Heat of Combustion:	45.8 kJ/g

### 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. Flammable aerosol. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn.

#### 10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

#### 10.4 CONDITIONS TO AVOID

Heat. Incompatible materials. Sources of ignition. Excessive water.

#### 10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents. Strong reducing agents. Moisture.

#### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon, hydrocarbons.

### Section 11: TOXICOLOGICAL INFORMATION

#### 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

**Likely Routes of Exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Symptoms related to physical/chemical/toxicological characteristics:**

**Eye:** Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Skin:** May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

**Ingestion:** May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

**Inhalation:** May cause respiratory tract irritation.

**SAFETY DATA SHEET****Acute Toxicity:**

Ingredient	IDLH	LC50	LD50
Distillates (petroleum), hydrotreated light	Not available.	Inhalation >5.2 mg/L 4h rat	Oral >5000 mg/kg, rat; Dermal >2000 mg/kg, rabbit
Solvent naphtha (petroleum), heavy aromatic	Not available.	Inhalation >5.28 mg/L 4h, rat	Oral >5000 mg/kg, rat; Dermal >2000 mg/kg, rabbit
Distillates (petroleum), hydrotreated heavy naphthenic	Not available.	Inhalation >5.0 mg/L 4h, rat	Oral >5000 mg/kg, rat; Dermal >5000 mg/kg, rabbit
Carbon dioxide	40000 ppm	Not available.	Not available.
Naphthalene	250 ppm	Not available.	Oral 490 mg/kg, rat; Dermal >2500 mg/kg, rat; Dermal >20 g/kg, rabbit
Dinonylphenol, ethoxylated, phosphated	Not available.	Not available.	Not available.

**Calculated overall Chemical Acute Toxicity Values**

LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
> 5 mg/L 4h, rat	> 2000 mg/kg, rat	> 2000 mg/kg, rabbit

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Distillates (petroleum), hydrotreated light	Not listed.
Solvent naphtha (petroleum), heavy aromatic	Not listed.
Distillates (petroleum), hydrotreated heavy naphthenic	Not listed.
Carbon dioxide	Not listed.
Naphthalene	G-A4, I-2B, N-2, CP65
Dinonylphenol, ethoxylated, phosphated	Not listed.

\* See Section 15 for more information.

**11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE****Skin Corrosion/Irritation:** Based on available data, the classification criteria are not met.**Serious Eye Damage/Irritation:** Causes serious eye irritation.**Respiratory Sensitization:** Based on available data, the classification criteria are not met.**Skin Sensitization:** Based on available data, the classification criteria are not met.**STOT-Single Exposure:** Based on available data, the classification criteria are not met.**Chronic Health Effects:****Carcinogenicity:** Possible carcinogen.**Germ Cell Mutagenicity:** Based on available data, the classification criteria are not met.**Reproductive Toxicity:****Developmental:** Based on available data, the classification criteria are not met.**Fertility:** Based on available data, the classification criteria are not met.**STOT-Repeated Exposure:** Based on available data, the classification criteria are not met.**Aspiration Hazard:** May be fatal if swallowed and enters airways.



## SAFETY DATA SHEET

**Other Information:** Not available.

### Section 12: ECOLOGICAL INFORMATION

#### 12.1 ECOTOXICITY

**Acute/Chronic Toxicity:** May cause long-term adverse effects in the aquatic environment.

#### 12.2 PERSISTENCE AND DEGRADABILITY

Not available.

#### 12.3 BIOACCUMULATIVE POTENTIAL

**Bioaccumulation:** Not available.

#### 12.4 MOBILITY IN SOIL

Not available.

#### 12.5 OTHER ADVERSE EFFECTS

Not available.

### Section 13: DISPOSAL CONSIDERATIONS

#### 13.1 WASTE TREATMENT METHODS

**Disposal Method:** This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

**Other disposal recommendations:** Flammable vapours may accumulate in the container. Do not incinerate empty containers.

### Section 14: TRANSPORT INFORMATION

#### 14.1 UN NUMBER

**DOT**  
UN1950

**NOM-004-SCT2-1994**  
UN1950

#### 14.2 UN PROPER SHIPPING NAME

**DOT**  
AEROSOLS, flammable, limited quantities

**NOM-004-SCT2-1994**  
AEROSOLS, flammable, limited quantities

#### 14.3 TRANSPORT HAZARD CLASS (ES)

**DOT**  
2.1

**NOM-004-SCT2-1994**  
2.1

#### 14.4 PACKING GROUP

**DOT**  
Not applicable.

**NOM-004-SCT2-1994**  
Not applicable.





## SAFETY DATA SHEET

### 14.5 ENVIRONMENTAL HAZARDS

Not available.

### 14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available.

### 14.7 SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood. The Blaster Corporation does not recommend shipping their aerosol products by air.

## Section 15: REGULATORY INFORMATION

### 15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

**US:** SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

**Mexico:** SDS prepared pursuant to NOM-018-STPS-2000.

SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Distillates (petroleum), hydrotreated light	Not listed.	Not listed.	Not listed.	Not listed.
Solvent naphtha (petroleum), heavy aromatic	Not listed.	Not listed.	Not listed.	Not listed.
Distillates (petroleum), hydrotreated heavy naphthenic	Not listed.	Not listed.	Not listed.	Not listed.
Carbon dioxide	Not listed.	Not listed.	Not listed.	Not listed.
Naphthalene	Not listed.	Not listed.	100	313
Dinonylphenol, ethoxylated, phosphated	Not listed.	Not listed.	Not listed.	Not listed.

### State Regulations

#### California Proposition 65:

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

#### Global Inventories:

Ingredient	USA TSCA
Distillates (petroleum), hydrotreated light	Yes.
Solvent naphtha (petroleum), heavy aromatic	Yes.
Distillates (petroleum), hydrotreated heavy naphthenic	Yes.
Carbon dioxide	Yes.
Naphthalene	Yes.
Dinonylphenol, ethoxylated, phosphated	Yes.



**SAFETY DATA SHEET**

NFPA-National Fire Protection Association:	
Health:	2
Fire:	4
Reactivity:	0

HMIS-Hazardous Materials Identification System:	
Health:	2*
Fire:	4
Physical Hazard:	0

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

**SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:**

**CP65**      **California Proposition 65**

**OSHA (O)**      **Occupational Safety and Health Administration.**

**ACGIH (G)**      **American Conference of Governmental Industrial Hygienists.**

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

**IARC (I)**      **International Agency for Research on Cancer.**

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)**      **National Toxicology Program.**

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

**Section 16: OTHER INFORMATION**

**Date of Preparation:** May 26, 2014

**Version:** 1.0

**Revision Date:** May 26, 2014

**Disclaimer:** We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. 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. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

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**Prepared for:** The Blaster Corporation

**End of Safety Data Sheet**



# SAFETY DATA SHEET

Issue Date 06-Sep-2011

Revision Date 29-May-2013

Version 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Name** PC-7, Part B

### Other Means of Identification

**SDS #** 130519-20

### Recommended Use of the Chemical and Restrictions on Use

**Recommended Use** Multi-purpose epoxy paste.

### Details of the Supplier of the Safety Data Sheet

#### **Supplier Address**

Protective Coatings Co.  
221 S Third St.  
Allentown, PA 18102 USA

### Emergency Telephone Number

**Company Phone Number** 610-432-3543 / 800-220-2103  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

**Appearance** Black paste

**Physical State** Paste

**Odor** Slight amine

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No	Weight-%
Aliphatic Polyaminoamide	68410-23-1	40-60
Magnesium Silicate	Proprietary	10-30
Aluminum Silicate	Proprietary	15-30
Hydrocarbon Resin	9003-53-6	5-20

Product contains a proprietary mixture of ingredients.

**4. FIRST AID MEASURES****First Aid Measures**

<b>General Advice</b>	Provide this SDS to medical personnel for treatment. After first aid, get appropriate in-plant, paramedic, or community medical support.
<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. Get medical attention if irritation occurs.
<b>Skin Contact</b>	Wash with soap and water. Remove and wash contaminated clothing before reuse. Get medical attention if irritation occurs.
<b>Inhalation</b>	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison center if individual's condition declines or if symptoms persist.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical advice.

**Most Important Symptoms and Effects, both Acute and Delayed**

<b>Symptoms</b>	Moderate skin and eye irritation. Direct contact may cause temporary redness and discomfort. May cause discomfort if swallowed.
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**Indication of any Immediate Medical Attention and Special Treatment Needed**

<b>Note to Physicians</b>	Skin and eye conditions may be aggravated by long term exposure.
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**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Dry chemical, CO2 or water spray.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Product is not flammable.

**Hazardous Combustion Products** Carbon monoxide. Carbon dioxide (CO2). Aldehydes.

**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. Wear positive pressure self-contained breathing apparatus (SCBA). Do not release runoff from fire control methods to sewers or waterways. NFPA Class IIIB.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**

<b>Personal Precautions</b>	Wear protective gloves/protective clothing and eye/face protection. Remove any contaminated clothing and wash thoroughly before reuse.
<b>Environmental Precautions</b>	See Section 12 for additional ecological information.

**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>	Dispose of contents/container to an approved waste disposal plant.

**7. HANDLING AND STORAGE****Precautions for Safe Handling**

<b>Advice on Safe Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Wear appropriate personal protective equipment. Do not eat, drink or smoke when using this product. Wash face, hands, and any exposed skin thoroughly after handling.
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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. Store contents under <90F (32C) . NFPA Class IIIB storage.
<b>Incompatible Materials</b>	Strong acids, Strong bases.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum Silicate	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable fraction	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) 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
Magnesium Silicate	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable fraction	(vacated) TWA: 2 mg/m <sup>3</sup> respirable dust <1% Crystalline silica, containing no Asbestos TWA: 20 mppcf if 1% Quartz or more, use Quartz limit	IDLH: 1000 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup> containing no Asbestos and <1% Quartz respirable dust

**Appropriate Engineering Controls**

<b>Engineering Controls</b>	Provide general or local exhaust ventilation if product is sanded or ground.
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**Individual Protection Measures, such as Personal Protective Equipment**

<b>Eye/Face Protection</b>	Chemical safety goggles/faceshield.
<b>Skin and Body Protection</b>	Wear protective gloves and protective clothing.
<b>Respiratory Protection</b>	Ensure adequate ventilation, especially in confined areas. If engineering controls do not keep airborne concentrations below acceptable levels, wear a NIOSH-approved respirator.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

<b>Physical State</b>	Paste	<b>Odor</b>	Slight amine
<b>Appearance</b>	Black paste	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Black		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	Not determined		
<b>Melting Point/Freezing Point</b>	Not available		
<b>Boiling Point/Boiling Range</b>	No data		
<b>Flash Point</b>	110 °C / 230 °F	CC (closed cup)	
<b>Evaporation Rate</b>	Not determined		
<b>Flammability (Solid, Gas)</b>	Not determined		
<b>Upper Flammability Limits</b>	Not available		
<b>Lower Flammability Limit</b>	Not available		
<b>Vapor Pressure</b>	Not determined		
<b>Vapor Density</b>	Not available		
<b>Relative Density (Specific Gravity)</b>	0.86	(1=Water)	
<b>Water Solubility</b>	Insoluble in water		
<b>Solubility in Other Solvents</b>	Alcohols		
<b>Partition Coefficient</b>	Not determined		
<b>Autoignition Temperature</b>	Not determined		
<b>Decomposition Temperature</b>	Not determined		
<b>Kinematic Viscosity</b>	Not determined		
<b>Dynamic Viscosity</b>	Not determined		
<b>Explosive Properties</b>	Not determined		
<b>Oxidizing Properties</b>	Not determined		
<b>Density</b>	7.2 lbs/gal		

## 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.

#### Hazardous Polymerization

Hazardous polymerization does not occur.

### Conditions to Avoid

Excessive heat over long periods of time.

### Incompatible Materials

Strong acids, Strong bases.

### Hazardous Decomposition Products

Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

**Product Information**

<b>Eye Contact</b>	May cause moderate eye irritation.
<b>Skin Contact</b>	Prolonged contact may cause redness and irritation.
<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Ingestion</b>	May cause discomfort if swallowed.

**Component Information** Not available

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Aliphatic Polyaminoamide 68410-23-1	>2000 mg/kg (rat)	2000 mg/kg (rat)	-
Hydrocarbon Resin 9003-53-6	>1000 mg/kg (mice)	-	-

**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**

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Magnesium Silicate		Group 3		
Hydrocarbon Resin 9003-53-6		Group 3		

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

**Numerical Measures of Toxicity**

Not determined

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Component Information** Not available

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Magnesium Silicate		100: 96 h Brachydanio rerio g/L LC50 semi-static		

**Persistence and 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.

**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**

Not regulated

**15. REGULATORY INFORMATION****International Inventories**

Not Determined

**Legend:***TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL - 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**

Not determined

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
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Aluminum Silicate	X	X	X
Magnesium Silicate	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	1	1	0	Not determined
<b>HMIS</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	1	1	0	B- Safety Glasses, Gloves

**Issue Date** 06-Sep-2011  
**Revision Date** 29-May-2013  
**Revision Note** New format

**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**



# Procter&Gamble

## Professional®

### MATERIAL SAFETY DATA SHEET

#### 1. Product and Company Identification

**Material name** PGP Comet Deodorizing Cleanser with Chlorinol  
**Product Code** 95408362  
**Version #** 02  
**Revision date** 10-15-2013  
**Manufacturer** Procter & Gamble Professional  
**Address** 2 P&G Plaza  
Cincinnati  
Ohio  
45202  
US  
**P&G Telephone Number:** 1-800-332-7787  
**Emergency 24-hr Telephone #:** CHEMTREC 1-800-424-9300

#### 2. Hazards Identification

##### Potential health effects

**Routes of exposure** Inhalation. Ingestion. Skin contact. Eye contact.  
**Eyes** Accidental exposure will cause a mild but transient irritation.  
**Skin** May cause transient irritation. Prolonged or repeated contact may be drying to skin.  
**Inhalation** May be irritating.  
**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Potential environmental effects** Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered minimal.

#### 3. Composition / Information on Ingredients

Components	CAS #	Percent
CALCIUM CARBONATE	471-34-1	60-100
SODIUM CARBONATE	497-19-8	7-13
CALCIUM HYDROXIDE	1305-62-0	1-5
Sodium Dichloro-s Triazinetrione Dihydrate	51580-86-0	1-5

#### 4. First Aid Measures

##### First aid procedures

**Eye contact** After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if symptoms persist.  
**Skin contact** Wash affected area with mild soap and water. Rinse with plenty of water. Get medical attention if irritation develops and persists.  
**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.  
**Ingestion** Drink 1 or 2 glasses of water. Do not induce vomiting without advice from poison control center or doctor. Get medical attention if any discomfort continues.

#### 5. Fire Fighting Measures

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not contaminate water.

## Extinguishing media

### Suitable extinguishing media

Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

## Protection of firefighters

### 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.

## 6. Accidental Release Measures

### Personal precautions

Keep unnecessary personnel away. Wear suitable protective clothing.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

### Clean-up methods and materials and containment measures

In case of spills, beware of slippery floors and surfaces. Sweep or scoop up and remove. Following product recovery, flush area with water. Minimize dust generation.

## 7. Handling and Storage

### Handling

Use personal protective equipment as required. Avoid contact with skin. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of reach of children.

### Storage

Store in a cool and well-ventilated place. Keep away from moisture.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
CALCIUM HYDROXIDE (1305-62-0)	TWA	5 mg/m3

### Engineering controls

Provide adequate ventilation.

### Personal protective equipment

#### Eye / face protection

Not normally needed. If contact is likely, safety glasses with side shields are recommended.

#### Skin protection

Not normally needed. If prolonged or repeated contact is likely, protective gloves are recommended. Neoprene gloves. Rubber gloves.

#### Respiratory protection

Not normally needed.

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

### Color

Green.

### Form

Powder.

### Odor

Pine

### pH

12.3 (1% solution)

### Melting point

1500.5 °F (815.83781279 °C) estimated

### Freezing point

1500.5 °F (815.83781279 °C) estimated

### Boiling point

212 °F (100 °C) estimated

### Flash point

220.00 °F (104.44 °C) estimated

### Evaporation rate

Not available.

### Vapor pressure

0.357930687 hPa estimated

### Specific gravity

2.492334776 estimated

### Solubility (water)

Moderate

### Partition coefficient (n-octanol/water)

Not available

### VOC

Not available.

### Percent volatile

0 % estimated estimated

### Density

2.49 g/cm3 estimated

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	This is a stable material.
<b>Conditions to avoid</b>	Avoid contact with acids. and Ammonia.
<b>Hazardous decomposition products</b>	Chlorine gas
<b>Hazardous polymerization</b>	Will not occur.

## 11. Toxicological Information

### Toxicological data

Components	Test Results
CALCIUM HYDROXIDE (1305-62-0)	Acute Oral LD50 Rat: 7340 mg/kg
CALCIUM CARBONATE (471-34-1)	Acute Oral LD50 Mouse: 6450 mg/kg
SODIUM CARBONATE (497-19-8)	Acute Oral LD50 Rat: 6450 mg/kg Acute Inhalation LC50 Guinea pig: 0.8 mg/l 2 Hours Acute Inhalation LC50 Mouse: 1.2 mg/l 2 Hours Acute Inhalation LC50 Rat: 2.3 mg/l 2 Hours Acute Oral LD50 Rat: 4090 mg/kg Acute Other LD50 Mouse: 116.6 mg/kg 30 Days
Sodium Dicholor-s Triazinetrione Dihydrate (51580-86-0)	Acute Oral LD50 500 mg/kg

<b>Sensitization</b>	Not available.
<b>Local effects</b>	Irritating to skin. Contact may irritate or burn eyes.
<b>Chronic effects</b>	Hazardous by OSHA criteria.
<b>Skin corrosion/irritation</b>	Not available.

## 12. Ecological Information

<b>Environmental effects</b>	Based on ecotoxicity and fate data for the individual ingredients in this specific formulation, and for related consumer household cleaning products formulations, this product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment at relevant environmental concentrations. This product is intended for dispersive use and should not be disposed of directly into the environment.
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## 13. Disposal Considerations

<b>Disposal instructions</b>	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
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## 14. Transport Information

<b>DOT</b>
Not regulated as dangerous goods.
<b>IMDG</b>
Not regulated as dangerous goods.
<b>IATA</b>
Not regulated as dangerous goods.

## 15. Regulatory Information

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

<b>Hazard categories</b>	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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Section 302 extremely hazardous substance

No

Section 311 hazardous chemical

No

#### State regulations

##### ILLRTK

Contains no Illinois Right To Know toxic substances.

##### US - Connecticut Hazardous Material Survey: Listed substance

Sodium Dichloro-s Triazinetrione Dihydrate (CAS 51580-86-0) LISTED

##### US - Illinois Chemical Safety Act: Listed substance

##### US - Massachusetts RTK - Substance: Listed substance

CALCIUM CARBONATE (CAS 471-34-1) LISTED  
CALCIUM HYDROXIDE (CAS 1305-62-0) LISTED  
Sodium Dichloro-s Triazinetrione Dihydrate (CAS 51580-86-0) LISTED

##### US - New Jersey Community RTK (EHS Survey): Listed substance

##### US - New Jersey RTK - Hazardous substance

CALCIUM CARBONATE (CAS 471-34-1) CALCIUM CARBONATE  
CALCIUM HYDROXIDE (CAS 1305-62-0) CALCIUM HYDROXIDE

##### US - New Jersey RTK - Special Hazard: Listed substance

Sodium Dichloro-s Triazinetrione Dihydrate (CAS 51580-86-0) SODIUM DICHLOROISOCYANURATE SPEC\_HAZAROUS

##### US - New Jersey RTK - Substances: Listed substance

CALCIUM CARBONATE (CAS 471-34-1) CALCIUM CARBONATE LISTED  
CALCIUM HYDROXIDE (CAS 1305-62-0) CALCIUM HYDROXIDE LISTED  
Sodium Dichloro-s Triazinetrione Dihydrate (CAS 51580-86-0) SODIUM DICHLOROISOCYANURATE LISTED

##### US - Pennsylvania RTK - Hazardous Substances: Listed substance

CALCIUM CARBONATE (CAS 471-34-1) LISTED  
CALCIUM HYDROXIDE (CAS 1305-62-0) LISTED  
Sodium Dichloro-s Triazinetrione Dihydrate (CAS 51580-86-0) LISTED

##### US - Rhode Island RTK - Hazardous Substances: Listed substance

Contains no Rhode Island Right To Know hazardous substances.

#### Canadian regulations

All ingredients are CEPA approved for import to Canada by Procter & Gamble. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

#### Inventory Status

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)

## 16. Other Information

#### HMIS® ratings

Health: 2  
Flammability: 1  
Physical hazard: 0

#### NFPA ratings

Health: 2  
Flammability: 1  
Instability: 0  
Special hazards:

**Disclaimer**

This MSDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations.

This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. Procter & Gamble assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

## 1. Chemical Product and Company Identification

Polytek Development Corp., 55 Hilton St., Easton, PA 18042, 610/559-8620

Product Name: **POLYFIL ND**

Chemical Family: Calcium Carbonate with Copolymer

## 2. Hazardous Constituents

<u>Ingredient/CAS #</u>	<u>Exposure Limits</u>
Copolymer, 25214-39-5	None established
Calcium carbonate, 1317-65-3	OSHA PEL TWA: 15mg/m3, total dust; 5mg/m3, respirable dust ACGIH TLV TWA: 10mg/m3, inhalable; 3 mg/m3, respirable (nuisance dust)
Silica, crystalline, 14808-60-7 (<1% in calcium carbonate)	OSHA PEL TWA: 15mg/m3, total dust; 5mg/m3, respirable dust (for nuisance dust, Table Z-3) ACGIH TLV TWA: 0.025 mg/m3, respirable (for crystalline silica)

## 3. Health Hazards

PRIMARY ROUTE(S) OF ENTRY: Inhalation, skin and eye contact

EYE: May cause irritation by mechanical abrasion..

SKIN: May cause slight irritation.

INGESTION: Unlikely route of exposure.

INHALATION: Causes irritation.

MEDICAL CONDITIONS THAT MAY BE AGGRAVATED BY EXPOSURE:

Possibly upper respiratory ailments, lung disease.

CARCINOGENICITY: Contains crystalline silica as an impurity. NTP, IARC, ACGIH and OSHA designate crystalline silica as a carcinogen.

CHRONIC EFFECTS: Excessive chronic exposure could result in pulmonary disease.

## 4. First Aid Measures

EYE CONTACT: Flush with water. Do not rub eyes. Seek medical attention if irritation persists.

SKIN CONTACT: Wash with soap and water.

INHALATION: Remove to fresh air. Treat symptoms. Seek medical attention if symptoms persist.

INGESTION: Seek medical attention if symptoms develop.

## 5. Fire Fighting Measures

FLASH POINT: Not applicable

EXTINGUISHING MEDIA: Water, CO<sub>2</sub>, dry chemical, foam-fog.

HAZARDOUS COMBUSTION PRODUCTS: CO, CO<sub>2</sub>, and other compounds.

## 6. Accidental Release Measures

Vacuum or sweep up and place in waste container.

## 7. Handling and Storage

HANDLING: Avoid generating and breathing airborne dust.

STORAGE: Store in closed container in a cool, dry area.

## 8. Exposure Controls/Personal Protection

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation.

PERSONAL PROTECTIVE EQUIPMENT: Wear eye protection and gloves.

RESPIRATORY PROTECTION: Wear a half-face air-purifying respirator with HEPA filter cartridges or a particulate dust mask. Observe respirator use limitations specified by manufacturer and OSHA respiratory protection standard (29 CFR 1910.134).

## 9. Physical Characteristics

APPEARANCE: White powder

VAPOR PRESSURE: Not applicable

ODOR: None

SOLUBILITY IN WATER: None

BOILING POINT: Not applicable

SPECIFIC GRAVITY: ~1.0

## 10. Stability and Reactivity

CONDITIONS TO AVOID: None known

CHEMICAL INCOMPATIBILITY: Strong acids, alum and ammonium salts.

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO<sub>2</sub>, and other compounds.

## 11. Regulatory and Other Information

COMMUNITY RIGHT-TO-KNOW: This product does not contain any compounds above the *de minimis* reporting levels subject to SARA Section 313 reporting requirements.

DISPOSAL: Upon disposal, this product is not a RCRA hazardous waste.

TRANSPORT: Not a hazardous material for shipping purposes based on *United Nations Recommendations for the Transport of Dangerous Goods* and 49 CFR Part 171.

HMIS RATING: Health -1, Flammability -0, Reactivity - 0, PPE - E.

EMERGENCY SHIPPING INFORMATION: Call CHEMTREC, 800/424-9300.

MSDS REVISION INDICATOR: First issue.

DISCLAIMER: The information contained herein is considered accurate; however, Polytek makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.



**MATHESON**

ask. . .The Gas Professionals™

## Safety Data Sheet

Material Name PROPANE

SDS ID: MAT19690

### \*\*\*Section 1 - IDENTIFICATION\*\*\*

**Product Identifier:** PROPANE

**Trade Names/Synonyms**

MTG MSDS 76; N-PROPANE; DIMETHYLMETHANE; PROPYL HYDRIDE; R-290; PROPYLHYDRIDE;  
LIQUEFIED PETROLEUM GAS; LPG; >96% NATURAL GRADE; >99.9% PURE GRADE; UN 1978; C3H8

**Chemical Family**

hydrocarbons, aliphatic

**Recommended Use**

Industrial and Specialty Gas Applications

**Restrictions on Use**

None known.

**Manufacturer Information**

MATHESON TRI-GAS, INC.  
150 Allen Road, Suite 302  
Basking Ridge, NJ 07920

General Information: 1-800-416-2505  
Emergency #: 1-800-424-9300 (CHEMTREC)  
Outside the US: 703-527-3887 (Call collect)

### \*\*\*Section 2 - HAZARDS IDENTIFICATION\*\*\*

**Classification in accordance with 29 CFR 1910.1200**

Flammable gas, Category 1

Gas under pressure, Liquefied gas

Specific Target Organ Toxicity - Single Exposure, Category 3 (central nervous system)

**GHS LABEL ELEMENTS**

**Symbol(s)**



**Signal Word**

DANGER

**Hazard Statement(s)**

Extremely flammable gas

Contains gas under pressure; may explode if heated

May cause drowsiness and dizziness

May displace oxygen and cause rapid suffocation.

**Precautionary Statement(s)**

**Prevention**

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Avoid breathing gas. Use only outdoors or in a well-ventilated area.

# Safety Data Sheet

Material Name PROPANE

SDS ID: MAT19690

## Response

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. 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.

## Storage

Store in a well-ventilated place. Protect from sunlight. Keep container tightly closed. Store locked up.

## Disposal

Dispose in accordance with all applicable regulations.

## Hazard(s) Not Otherwise Classified

May cause frostbite upon sudden release of liquefied gas.

### \*\*\*Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS\*\*\*

CAS	Component	Percent
74-98-6	Propane	>96

## Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Aliphatic hydrocarbon gases (Alkane [C1-C4]).

### \*\*\*Section 4 - FIRST AID MEASURES\*\*\*

## Description of Necessary Measures

### Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

### Skin

If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

### Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

### Ingestion

If swallowed, get medical attention.

## Most Important Symptoms/Effects

### Acute

frostbite, suffocation, central nervous system depression

### Delayed

No information on significant adverse effects.

## Indication of Immediate Medical Attention and Special Treatment

For inhalation, consider oxygen.

### \*\*\*Section 5 - FIRE FIGHTING MEASURES\*\*\*

## Suitable Extinguishing Media

regular dry chemical, carbon dioxide  
Large fires: water spray or fog

## Unsuitable Extinguishing Media

Do not direct water at source of leak or safety devices; icing may occur.



# Safety Data Sheet

Material Name PROPANE

SDS ID: MAT19690

## Specific Hazards Arising from the Chemical

Severe fire hazard. Severe explosion hazard. Gas/air mixtures are explosive. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

## Hazardous Combustion Products

**Combustion:** oxides of carbon

## Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Stop leak if possible without personal risk. Let burn unless leak can be stopped immediately. For smaller tanks or cylinders, extinguish and isolate from other flammables. Evacuation radius: 800 meters (1/2 mile). Stop flow of gas.

## Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

## \* \* \*Section 6 - ACCIDENTAL RELEASE MEASURES\* \* \*

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

### Methods and Materials for Containment and Cleaning Up

Avoid heat, flames, sparks and other sources of ignition. All equipment used when handling the product must be grounded. Remove sources of ignition. Do not touch or walk through spilled material. Stop leak if possible without personal risk. If possible, turn leaking containers so that gas escapes rather than liquid. Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. Do not direct water at spill or source of leak. Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.

## \* \* \*Section 7 - HANDLING AND STORAGE\* \* \*

### Precautions for Safe Handling

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Avoid breathing gas. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

### Conditions for Safe Storage, including any Incompatibilities

Store and handle in accordance with all current regulations and standards. Protect from sunlight. Store in a well-ventilated place. Keep container tightly closed. Grounding and bonding required. Store locked up. Subject to storage regulations: U.S. OSHA 29 CFR 1910.110. Keep separated from incompatible substances.

**Incompatibilities** combustible materials, oxidizing materials

# Safety Data Sheet

Material Name PROPANE

SDS ID: MAT19690

## \*\*\*Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\*\*\*

### Component Exposure Limits

#### Propane (74-98-6)

ACGIH: 1000 ppm TWA  
OSHA (Final): 1000 ppm TWA; 1800 mg/m3 TWA  
OSHA (Vacated): 1000 ppm TWA; 1800 mg/m3 TWA  
NIOSH: 1000 ppm TWA; 1800 mg/m3 TWA

### Component Biological Limit Values

There are no biological limit values for any of this product's components.

### IDLH

2100 ppm

### Appropriate Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eyes/Face Protection

For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

#### Skin Protection

For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.

#### Glove Recommendations

Wear insulated gloves.

#### Respiratory Protection

The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.

2100 ppm

Any supplied-air respirator.

Any self-contained breathing apparatus with a full facepiece.

Emergency or planned entry into unknown concentrations or IDLH conditions -

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Any supplied-air respirator with a full facepiece that 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.

Escape -

Any appropriate escape-type, self-contained breathing apparatus.

## \*\*\*Section 9 - PHYSICAL AND CHEMICAL PROPERTIES\*\*\*

# Safety Data Sheet

Material Name PROPANE

SDS ID: MAT19690

**Physical State:** Gas  
**Color:** colorless  
**Odor:** gasoline odor  
**pH:** Not available  
**Boiling Point:** -40 °C  
**Decomposition:** Not available  
**LEL:** 2.1 %  
**Vapor Pressure:** 6398 mmHg @ @ 21.1 °C  
**Specific Gravity (water=1):** 0.5853 @ @ -45 °C  
**Log KOW:** 2.36  
**Viscosity:** Not available  
**Molecular Formula:** C-H3-C-H2-C-H3  
**Flammability (solid, gas):** Flammable gas

**Appearance:** Colorless gas  
**Physical Form:** gas  
**Odor Threshold:** 5000 - 20000 ppm  
**Melting/Freezing Point:** -190 °C  
**Flash Point:** -105 °C  
**Evaporation Rate:** Not available  
**UEL:** 9.5 %  
**Vapor Density (air = 1):** 1.55  
**Water Solubility:** very slightly soluble  
**Auto Ignition:** 450 °C  
**Molecular Weight:** 44.11  
**Critical Temperature:** 96.74°C

## Other Property Information

No additional information is available.

## Solvent Solubility

**Soluble:** absolute alcohol, ether, chloroform, benzene, turpentine

## \*\*\*Section 10 - STABILITY AND REACTIVITY\*\*\*

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable at normal temperatures and pressure.

### Possibility of Hazardous Reactions

Will not polymerize.

### Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Containers may rupture or explode if exposed to heat.

### Incompatible Materials

combustible materials, oxidizing materials

### Hazardous Decomposition

**Combustion:** oxides of carbon

## \*\*\*Section 11 - TOXICOLOGICAL INFORMATION\*\*\*

### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

##### Propane (74-98-6)

Inhalation LC50 Rat 658 mg/L 4 h

#### RTECS Acute Toxicity (selected)

The components of this material have been reviewed, and RTECS publishes the following endpoints:

##### Propane (74-98-6)

**Inhalation:** >800000 ppm/15 minute(s) Inhalation Rat LC50

### Information on Likely Routes of Exposure

#### Inhalation

nausea, vomiting, irregular heartbeat, headache, drowsiness, dizziness, disorientation, mood swings, loss of coordination, suffocation, convulsions, unconsciousness, coma

# Safety Data Sheet

Material Name PROPANE

SDS ID: MAT19690

## Ingestion

ingestion of a gas is unlikely

## Skin Contact

blisters, frostbite

## Eye Contact

frostbite, blurred vision

## Immediate Effects

frostbite, suffocation, central nervous system depression

## Delayed Effects

No information on significant adverse effects.

## Medical Conditions Aggravated by Exposure

None known.

## Irritation/Corrosivity Data

No data available.

## RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

## Target Organs

### Propane (74-98-6)

central nervous system

## Respiratory Sensitization

No data available.

## Dermal Sensitization

No data available.

## Carcinogenicity

### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

## RTECS Mutagenic

The components of this material have been reviewed, and RTECS publishes data for one or more components.

## Reproductive Effects Data

No data available.

## RTECS Tumorigenic

The components of this material have been reviewed, and RTECS publishes data for one or more components.

## Additional Data

Stimulants such as epinephrine may induce ventricular fibrillation.

## Specific Target Organ Toxicity - Single Exposure

central nervous system

## Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

## Aspiration Hazard

Not applicable.

## \* \* \*Section 12 - ECOLOGICAL INFORMATION\* \* \*

### Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

### Persistence and Degradability

This material is expected to biodegrade.

# Safety Data Sheet

Material Name PROPANE

SDS ID: MAT19690

## Bioaccumulative Potential

Bioconcentration potential in aquatic organisms is low based on BCF value of 13.

## Mobility

Expected to have moderate mobility in soil.

## Other Ecological Information

No additional information is available.

## \*\*\*Section 13 - DISPOSAL CONSIDERATIONS\*\*\*

### Disposal Methods

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262.

Hazardous Waste Number(s): D001.

### Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

## \*\*\*Section 14 - TRANSPORT INFORMATION\*\*\*

### US DOT Information

Shipping Name: Propane

UN/NA #: UN1978 Hazard Class: 2.1

Required Label(s): 2.1

### IMDG Information

Shipping Name: Propane

UN #: UN1978 Hazard Class: 2.1

Required Label(s): 2.1

## \*\*\*Section 15 - REGULATORY INFORMATION\*\*\*

### Component Analysis

#### U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

#### SARA 311/312 Hazardous Categories

Acute Health: Yes Chronic Health: No Fire: Yes Pressure: Yes Reactive: No

#### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Propane	74-98-6	No	Yes	Yes	Yes	Yes

Not regulated under California Proposition 65

#### Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Propane	74-98-6	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

## \*\*\*Section 16 - OTHER INFORMATION\*\*\*

### Summary of Changes

Updated: 4/14/2014

# Safety Data Sheet

Material Name PROPANE

SDS ID: MAT19690

**NFPA Ratings: Health: 2 Fire: 4 Reactivity: 0**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

## Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

## Other Information

Matheson Tri-Gas, Inc. makes no express or implied warranties, guarantees or representations regarding the product or the information herein, including but not limited to any implied warranty or merchantability or fitness for use. Matheson Tri-Gas, Inc. shall not be liable for any personal injury, property or other damages of any nature, whether compensatory, consequential, exemplary, or otherwise, resulting from any publication, use or reliance upon the information herein.

End of Sheet MAT19690



## MSDS

# TGS - Tincture of Green Soap

### Section 1

HealthLink  
3611 St Johns Bluff Road South, Suite 1  
Jacksonville, FL 32224

Emergency Phone at Infotrac: (800) 535-5053

Date Prepared: 04/21/04

Name: TGS - Tincture of Green Soap  
Product Catalog No: 7840

Health 0	Flammability 2	Reactivity 0	PPE 0
Health Hazard	Fire Hazard	Reactivity	Personal Protection
0 = minimal	0 = will not burn	0 = none	0 = not necessary
1 = slightly hazardous	1 = FP> 141 F	1 = mild	1 = glasses w/shields
2 = hazardous	2 = FP=>73F=<141F	2 = strong	2 = glasses w/shields,gloves
3 = serious hazard	3 = FP<73F		3 = glasses w/shields, gloves, protective clothes
4 = severe hazard	4 = BP<95F FP By PMCC		4 = glasses w/shields, gloves, & respirator

\*DGIS

### Section 2: Hazardous Ingredients / Identity Information

Hazardous Components:

Ethanol	CAS #64-17-5	30% by Volume
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### Section 3: Health Hazard & First Aid

1. Acute Health Effect Minimal
2. Chronic Health Effects No
3. Carcinogen No
4. Primary Entry Routes:
  - a) Skin & Eyes: Product can cause eye irritation. Not considered a skin irritant.
  - b) Inhalation: Not considered an entry route.
  - c) Ingestion: May be harmful if swallowed.
5. First Aid:
  - a) Skin: N/A
  - b) Eyes: Wash eyes with large volumes of water for at least 15 minutes while lifting the upper and lower eyelids and rotating the eyeball. Get medical attention if irritation persists.
  - c) Ingestion: Give large volumes of water. Do not induce vomiting. Get medical attention.
  - d) Inhalation: N/A

For Technical Service Call 800-638-2625

# MSDS - TGS (page 2)

## Section 4: Physical & Chemical Characteristics

1. Physical State - Liquid
2. Color - Light golden amber
3. Odor - Lavender
4. Solubility in water - Complete
5. Specific Gravity (H2O = 1.0) - 0.9735
6. pH - 10.3
7. Freezing Point - N/A
8. Flash Point - 77 F (TCC)
9. Vapor Pressure - N/A

## Section 5: Fire and Explosion Hazard

1. Flash Point - 77 F (TCC)
2. Extinguishing Media - Water, Foam, CO2
3. Special Fire Fighting Procedures - None
4. Unusual Fire & Explosion Hazard - Fire fighters should observe all precautions that apply to any fire where chemicals are stored.

## Section 6: Reactivity Data

1. Stability - Stable
2. Conditions to Avoid - None known

## Section 7: Spill or Leak Procedures

1. If product leaks or spills - flood area with water - mop up & dispose of in sanitary sewer
2. Abide by Federal, State, and Local regulations.

## Section 8: Personal Protection

None Required.

## Section 9: Special Precautions

1. Store containers tightly closed and in upright position.
2. Do not destroy or deface label.

## Section 10: Section 313 Supplier Notification (SARA)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

None

## Section 11: Toxicological Information

None

## Section 12: Ecological Information

None

## Section 13: Disposal Considerations

See Section 7 above

## Section 14: DOT Transport Information

1. This product is in Package Group III
  2. Gallons and smaller are classed as CONSUMER COMMODITY ORM-D thus are exempt from regulation
  3. Larger sizes ARE regulated
  4. The Bill of Lading
- UN1993, Flammable liquids, n.o.s. (Contains Ethanol), 3, III

## Section 15: Other Regulatory Information

All ingredients appear on the TSCA Inventory List

## Section 16: Other Information

1. N/A = Not Applicable
2. Dangerous Goods Identification System (DGIS)
3. PMCC = Pensky Martin Closed Cup
4. HealthLink believes that the information given here is accurate. The suggested procedures are based on experience and common sense and are not necessarily all-inclusive of every conceivable circumstance.

For Technical Service Call 800-638-2625



# MATERIAL SAFETY DATA SHEET

Page 1 of 4

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Ronson Multi-Fill Butane

**DATE:** February 17, 2010

**TRADE NAME:** Ronson Multi-Fill Butane

**GENERAL USE:** Lighter Fuel

**CHEMICAL FAMILY:** PARAFFIN SERIES HYDROCARBON

**PRODUCT DESCRIPTION:**

CLEAR, COLORLESS, ODORLESS LIQUEFIED GAS.

# RONSON®

**MANUFACTURED FOR:**

**Zippo Manufacturing Company**

**ADDRESS (NUMBER, STREET, P.O. BOX)**

33 Barbour Street

**(CITY, STATE AND ZIP CODE)**

Bradford, PA 16701

**COUNTRY**

USA

**DATE PREPARED:**

February 17, 2010

**SUPERSEDES:**

02/03/2010 issue.

**TELEPHONE NUMBER FOR INFORMATION / Customer Service**

(814) 368-2700

**CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER**



1-800-255-3924

01-813-248-0585

North America Toll Free

International

## SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Components	MOL%	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
Petroleum gases, liquefied, sweetened	100	68476-86-8	270-705-8	(+F)	R12

**Notes:** THIS PRODUCT IS DEFINED BY OSHA IN 29 CFR 1910.1200c AS A FLAMMABLE GAS. USE OF THIS PRODUCT MAY REQUIRE COMPLIANCE WITH 29 CFR 1910.119, PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS.

## SECTION 3 - HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Contact with evaporating liquid may cause frostbite. Under normal conditions of storage and use of this product will not constitute a health hazard. However if released, being heavier than air, this product may collect in any confined space and may reach concentrations presenting an asphyxiation or safety hazard and may be ignited by pilot lights, other flames, sparks, heaters electric motors, static discharge, or other sources of ignition.

### POTENTIAL HEALTH EFFECTS

#### INHALATION:

Inhalation of vapor may produce anesthetic effects and feeling of euphoria. Prolonged overexposure can cause rapid breathing, headache, dizziness, narcosis, unconsciousness, or death from asphyxiation, depending upon concentration and period of exposure.

#### SKIN:

Direct contact of the skin with this product may cause frostbite or cold burns and containers may present a similar hazard when gas is being withdrawn, due to the cooling effect. Handling precautions should be strictly observed.

#### EYES:

Liquid can cause severe irritation, redness, tearing, blurred vision, and possible freeze burns.

#### INGESTION:

Aspiration Hazard.

#### CARCINOGENICITY:

NTP? No

IARC MONOGRAPHS? No

OSHA REGULATED? No

CALIFORNIA, Prop.65? No

ESIS?, (Europe) No

## SECTION 4 - FIRST AID MEASURES

#### INHALATION:

Remove victim to fresh air. IF BREATHING HAS STOPPED, RESTORE BREATHING AT ONCE. Apply artificial respiration or oxygen if needed. Get medical attention immediately.

#### EYES:

Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation persists. CONSULT PHYSICIAN IMMEDIATELY IF FROSTBITE OCCURS.

#### SKIN:

For liquid contact, warm areas gradually and get medical attention. If there is evidence of tissue damage, flush area with plenty of water.

#### INGESTION:

Do not induce vomiting unless directed to do so by a physician or poison control center. Get immediate medical attention.

# MATERIAL SAFETY DATA SHEET

Page 2 of 4

**PRODUCT NAME:** Ronson Multi-Fill Butane  
**DATE:** February 17, 2010

## SECTION 5 - FIRE FIGHTING MEASURES

### GENERAL HAZARDS:

Highly Flammable Flash Point -132.23 to -156.0 F ,LEL=1.8% vol in air,UEL= 9.5% vol. in air.

### EXTINGUISHING MEDIA:

Dry Chemical (B-C), water.

### FIRE FIGHTING PROCEDURES:

Keep containers cool using water spray to avoid bursting. Evacuate area. Avoid accumulation of unburned materials. Remove personnel in general area. Observe maximum isolation when extinguishing fire. Expansion of liquid and change of state from liquid to vapor will allow combustible mixture to encompass a large area.

### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Vapors are heavier than air and may travel along the ground or may be moved by ventilation systems and ignited by pilot lights, open flames, sparks, heaters, smoking instruments, electric motors, static discharge, or other ignition sources at locations in proximity of the material handling point. If a fire occurs, the potential always exists for an explosion known as boiling liquid expanding vapor explosion (BLEVE)

### HAZARDOUS COMBUSTION PRODUCTS:

CO, CO2 and hydrocarbons.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

#### Containment Procedures

Stop leak if possible. Eliminate all sources of ignition. Prevent vapor from entering sewers, basements or confined areas.

#### Clean-Up Procedures

Evacuate all personnel and remain upwind of leak.

#### Evacuation Procedures

Evacuate the area promptly. Keep upwind of the spilled material and isolate exposure.

#### Special Procedures

Wear appropriate personal protection equipment.

## SECTION 7 - HANDLING AND STORAGE

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

#### Handling Procedures

Avoid high temperatures that may elevate component pressure above container rating. Do not get into eyes; prevent contact with skin and clothing. Do not breathe dust. If product is placed in solution, take precautions to avoid breathing mists. When using, do not eat, drink, or smoke. Remove all contaminated clothing and wash before reuse. Wash thoroughly after handling.

**STORAGE PRECAUTIONS:** Store in a cool well ventilated area. Do not store at temperatures above 120°F which may cause container to burst. Do not puncture or incinerate containers. Keep out of the reach of children. Small containers e.g. cylinders of approved design, properly sealed and in good condition, should be stored outdoors or in well ventilated storerooms, at no lower than ground level and must be quickly removable in an emergency. Eliminate all sources of ignition from the storage area.

## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HAZARDOUS COMPONENTS	NIOSH				ACGIH		OSHA	
	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3	TLV/TWA ppm	TWA mg/m3	PEL ppm	PEL mg/m3
Petroleum gases, liquefied,sweetened	800	1900			800		800	NE

### PERSONAL PROTECTION

#### RESPIRATORY PROTECTION:

For exposures above PEL Limits, use NIOSH or EN-149 (European) approved respirator to control exposure when TWA exceeded. Maintain adequate ventilation.

#### PROTECTIVE GLOVES:

Chemical resistant ,impervious, and insulated.

#### EYE PROTECTION:

Faceshield or Goggles.

#### OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

##### VENTILATION

MECHANICAL: Provide as needed to keep concentration in air below TLV and LEL.

LOCAL EXHAUST: Continuous ventilation recommended.

SPECIAL: Explosion proof fans and motors.

#### WORK / HYGIENIC PRACTICES:



Comply with state and local regulations covering liquefied petroleum gases. Comply with NFPA Pamphlet #58. Store small containers in well-ventilated areas, away from heat or sources of ignition. Prohibit smoking in areas of storage or use.

# MATERIAL SAFETY DATA SHEET

<b>PRODUCT NAME:</b> Ronson Multi-Fill Butane			
<b>DATE:</b> February 17, 2010			
<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>			
APPEARANCE AND ODOR CLEAR, COLORLESS, ODORLESS LIQUEFIED GAS.		VAPOR PRESSURE 70 DEG F: 31 - 40 PSIG	
pH NA		SPECIFIC GRAVITY (WATER = 1) 0.56	
BOILING POINT / BOILING RANGE (-4.46 to -11.95 deg. F @ 1 ATM).		SOLUBILITY IN WATER 70 °F: 0.008%	
FLASH POINT (-132.23 to -156.0 deg. F) Closed Cup.		VISCOSITY NA	
FLAMMABLE LIMITS LEL: 1.8% Vol UEL: 9.5%Vol		VAPOR DENSITY (AIR = 1) 1.7237 - 1.952	
AUTOIGNITION TEMPERATURE VOC Content: 100%		EVAPORATION RATE Ethyl Ether = 1) >1	
<b>SECTION 10 - STABILITY AND REACTIVITY</b>			
STABILITY STABLE X		CONDITIONS TO AVOID: High heat, sparks, and open flames	
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizers			
HAZARDOUS DECOMPOSITION OR BYPRODUCTS:		CO, Hydrocarbon Vapors.	
HAZARDOUS POLYMERIZATION: Will not occur.		CONDITIONS TO AVOID: None related to polymerization.	
<b>SECTION 11 - TOXICOLOGICAL INFORMATION</b>			
Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
No toxicological information is available for this product.			
None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.			
<b>SECTION 12 - ECOLOGICAL INFORMATION</b>			
No ecological data specific to this product is available ,however based on the components used in its manufacture, it is considered biodegradable. Product should not be allowed to enter sewers or other enclosed spaces or waterways.			
<b>STATEMENT OF BIODEGRADABILITY</b>			
The degradation of the NGL propellants does not take place by way of biological organisms. These are gases at atmospheric pressure and ambient temperature and their atmospheric life is measured in a matter of days. The degradation of the NGL propellants is accomplished via photolysis.			
<b>SECTION 13 - DISPOSAL CONSIDERATIONS</b>			
WASTE DISPOSAL METHOD: (1) MECHANICAL RECOVERY (2) FLARE-OFF AT SAFE LOCATION (VAPORS) (3) EXHAUST TO ATMOSPHERE IN SAFE LOCATION (NO OPEN FLAMES)			
<b>Component Waste Numbers</b>			
No EPA Waste Numbers are applicable for this product's components.			
<b>Disposal Instructions</b>			
All wastes must be handled in accordance with local, state and federal regulations. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.			
<b>SECTION 14 - TRANSPORT INFORMATION</b>			
PROPER SHIPPING NAME:		PETROLEUM GASES, LIQUEFIED, 2.1, FLAMMABLE GAS, UN 1075	
DOT HAZARD CLASS / Pack Group:		2.1, FLAMMABLE GAS, UN1075	
REFERENCE:		49 CFR.	
UN / NA IDENTIFICATION NUMBER:		UN 1075	
LABEL:		LABELED / PLACARDED FLAMMABLE GAS	
HAZARD SYMBOLS:			
		IATA HAZARD CLASS / Pack Group: UN 1075 Cargo Aircraft Only 150kg max net wt. ERG code 10L ("Danger " logo required). IMDG HAZARD CLASS: 2.1, FLAMMABLE GAS, UN1075 Gas Code B RID/ADR Dangerous Goods Code: NE UN TDG Class / Pack Group: UN 1075/Flammable Gas. Hazard Identification Number (HIN): 23	
Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.			

# MATERIAL SAFETY DATA SHEET

Page 4 of 4

<b>PRODUCT NAME: Ronson Multi-Fill Butane</b>			
<b>DATE: February 17, 2010</b>			
<b>SECTION 15 - REGULATORY INFORMATION</b>			
TSCA (USA - Toxic Substance Control Act):		Components are listed.	
SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):			
Acute Health: NO	Chronic Health: NO		
Fire: Yes	Sudden Release of Pressure: Yes		
Reactive: NO			
<b>313 REPORTABLE INGREDIENTS:</b>		None reportable.	
CERCLA (USA - Comprehensive Response Compensation and Liability Act):		No RQ's Listed	
California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:		None Listed	
CPR (Canadian Controlled Products Regulations): This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations. No components are listed in the WHMIS IDL.			
IDL (Canadian Ingredient Disclosure List):		Listed	
DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List):		Listed on DSL.	
EINECS (European Inventory of Existing Commercial Chemical Substances):		Referenced.	
WGK Water Quality Index:		1	
RISK PHRASES:	SYMBOL(S) REQUIRED FOR EU/GHS LABEL	SAFETY PHRASES:	
<b>R12: Extremely Flammable</b>	  <b>(+F): Extremely Flammable</b>	<b>S2- Keep out of the reach of children.</b> <b>S9-Keep container in a well ventilated place.</b> <b>S16- Keep away from sources of ignition</b> <b>-No smoking.</b>	
<b>SECTION 16 - OTHER INFORMATION</b>			
<b>Legend:</b> NA=Not Applicable, NE= Not Established .			
HMIS HAZARD RATINGS	HEALTH:	1	0 = INSIGNIFICANT
	FLAMMABILITY:	4	1 = SLIGHT
	PHYSICAL HAZARD:	0	2 = MODERATE
	PERSONAL PROTECTIVE EQUIPMENT:	H	3 = HIGH
			4 = EXTREME
REVISION SUMMARY:			
<b>MSDS Prepared by:</b> Zippo Manufacturing Company 33 Barbour Street USA 16701 1-814-368-2700 Website: www.zippo.com			
The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. 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. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.			



# Material Safety Data Sheet and Safe Handling and Disposal Information

## Section 1. Chemical Product and Company Identification

**Product name** Super Degreaser & Concentrated Cleaner

**Product Code** CRSDC128

**Date of issue** 08/06/03

**Supersedes** 06/17/03

This product is not a registered pesticide.

**Emergency Telephone Numbers** **For MSDS Information:**  
Compliance Services (404) 352-1680

**For a Medical Emergency:**  
CHEM-TEL  
(800) 255-3924 (Toll Free - Calls Recorded)

**For a Transportation Emergency:**  
CHEMTREC  
(800) 424-9300 (Toll Free - Calls Recorded)

**Prepared by** Compliance Services Group  
Acuity Specialty Products Group  
1420 Seaboard Industrial Blvd.  
Atlanta, GA 30318

## Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
DODECYL BENZENE SULFONIC ACID; alkyl aryl sulfonic acid	27176-87-0	1-5	ACGIH TLV (United States). STEL: 3 mg/m <sup>3</sup> OSHA PEL (United States). TWA: 1 mg/m <sup>3</sup>
SODIUM METASILICATE; (silicic acid(H <sub>2</sub> -Si-O <sub>3</sub> ) disodium salt; water glass	6834-92-0	1-5	ACGIH TLV (United States). TWA: 10 mg/m <sup>3</sup> Form: Dust OSHA PEL (United States). : 15 mg/m <sup>3</sup> Form: Dust
ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve	111-76-2	1-5	ACGIH TLV (United States). Skin TWA: 20 ppm Form: Vapor OSHA PEL (United States). Skin TWA: 25 ppm Form: Vapor

## Section 3. Hazards Identification

**Acute Effects** **Routes of Entry** Absorbed through skin. Eye contact.

**Skin** Slightly hazardous in case of skin contact (irritant). Corrosive to skin on contact. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Eyes** Hazardous in case of eye contact (irritant). Corrosive to eyes.

**Inhalation** Over-exposure by inhalation may cause respiratory irritation.

**Ingestion** Harmful if swallowed. May cause burns to mouth, throat and stomach.

**Carcinogenic Effects** Not listed as carcinogen by OSHA, NTP or IARC.

**Chronic Effects** Shows evidence from animal experiments that exposure in excess of the occupational exposure limit can have harmful effects on the blood, kidneys and liver.

See Toxicological Information (section 11)

### HMIS

Health	2
Fire Hazard	0
Reactivity	0
Personal Protection	B

## Section 4. First Aid Measures

**Eye Contact** Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention immediately.

**Skin Contact** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops.

**Inhalation** If inhaled, remove to fresh air. If irritation persists, seek medical attention.

**Ingestion** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

## Section 5. Fire Fighting Measures

**Flash Point** Not applicable. **Flammable Limits** Not applicable.

**Flammability** Not applicable.

**Fire Hazard** Not applicable.

**Fire-Fighting Procedures** Use DRY chemicals, CO<sub>2</sub>, water spray or foam.



**Section 6. Accidental Release Measures**

**Spill Clean up** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

**Section 7. Handling and Storage**

**Handling** Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapors or spray mists. Keep container closed. Wash thoroughly after handling.

**Storage** Keep container tightly closed. Store between 40°F and 120°F. Keep out of the reach of children.

**Section 8. Exposure Controls, Personal Protection****Personal Protection****Protective Clothing (Pictograms)**

**Eyes** Safety glasses.

**Body** Protective gloves should be worn under conditions of prolonged use.

**Respiratory** A respirator is not needed under normal and intended conditions of product use.

**Section 9. Physical and Chemical Properties**

**Physical State** Liquid.

**pH** 12.7 - 13.2

**Boiling Point** 104.4°C (219.9°F)

**Specific Gravity** 1.07 (Water = 1)

**Solubility** Easily soluble in cold water, hot water.

**Color** Purple.

**Odor** Mild.

**Vapor Pressure** Not available.

**Vapor Density** Not available.

**Evaporation Rate** Not determined.

**VOC (Consumer)** 52 (g/l).

**Section 10. Stability and Reactivity**

**Stability and Reactivity** The product is stable.

**Incompatibility** Slightly reactive with acids.

**Hazardous Polymerization** Will not occur.

**Hazardous Decomposition Products** Not applicable.

**Section 11. Toxicological Information****Toxicity to Animals****DDBSA:**

ORAL (LD50): Acute: 2140 mg/kg [Rat].

**Sodium Metasilicate:**

ORAL (LD50): Acute: 2200 mg/kg [Rat].

**Ethylene Glycol Monobutyl Ether:**

ORAL (LD50): Acute: 1746 mg/kg [Rat]. 1519 mg/kg [Mouse]. 1414 mg/kg [Guinea pig].

DERMAL (LD50): Acute: 435 mg/kg [Rabbit]. >2000 mg/kg [Guinea pig].

VAPOR (LC50): Acute: 700 ppm 7 hour(s) [Mouse]. >633 ppm 1 hour(s) [Guinea pig]. >691 ppm 1 hour(s) [Guinea pig].

**Section 12. Ecological Information**

**Ecotoxicity** Not available.

**Biodegradable/OECD** Not available.

**Section 13. Disposal Considerations**

**Waste Information** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Waste Stream** Not available.

Consult your local or regional authorities.

**Section 14. Transport Information**

**Proper shipping name** Corrosive Liquids, NOS (Sodium Metasilicate) or Consumer Commodity ORM-D in limited quantities

**DOT Classification** Class 8: Corrosive material

**UN number** UN 1760

**TDG Classification** Class 8: Corrosive material Class 9.2: Environmentally hazardous material.

**Section 15. Regulatory Information****U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting: Ethylene Glycol Monobutyl Ether 3%

Clean Water Act (CWA) 311: DDBSA

Clean air act (CAA) 112 regulated toxic substances: Ethylene Glycol Monobutyl Ether

**State Regulations**

California prop. 65: No products were found.

**WHMIS (Canada)**

Class D-1B: Material causing immediate and serious toxic effects (TOXIC).

Class D-2B: Material causing other toxic effects (TOXIC).

Class E: Corrosive liquid.

**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.

# Material Safety Data Sheet

24 Hour Assistance:

1-847-367-7700

Rust-Oleum Corp.

www.rustoleum.com



## 1. Identification

**Product Name:** STRUST +SSPR 6PK SEMIGL BLACK      **Revision Date:** 8/7/2014  
**Product Number:** 7798830  
**Product Use/Class:** Topcoat/Aerosols  
**Supplier:** Rust-Oleum Corporation  
 11 Hawthorn Parkway  
 Vernon Hills, IL 60061  
 USA  
**Manufacturer:** Rust-Oleum Corporation  
 11 Hawthorn Parkway  
 Vernon Hills, IL 60061  
 USA  
**Prepared by:** Regulatory Department

## 2. Hazard Identification

**EMERGENCY OVERVIEW:** Extremely flammable liquid and vapor. Vapors may cause flash fire or explosion. Harmful if inhaled. May affect the brain or nervous system causing dizziness, headache or nausea. Contents Under Pressure. May cause eye, skin, or respiratory tract irritation. KEEP OUT OF REACH OF CHILDREN. Harmful if inhaled. Harmful if swallowed. Causes eye irritation. Use ventilation necessary to keep exposures below recommended exposure limits, if any. Vapor Harmful. Causes Eye, Skin, Nose, and Throat Irritation.

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Causes Serious Eye Irritation

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** May cause skin irritation. Allergic reactions are possible.

**EFFECTS OF OVEREXPOSURE - INHALATION:** High gas, vapor, mist or dust concentrations may be harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains carbon black. Chronic inflammation, lung fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated 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 carbon black in the formula. 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

## 3. Composition/Information On Ingredients

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
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Acetone	67-64-1	35.0	500 ppm	750 ppm	1000 ppm	N.E.
Liquefied Petroleum Gas	68476-86-8	30.0	N.E.	N.E.	N.E.	N.E.
Medium Oil Alkyd	Proprietary	15.0	N.E.	N.E.	N.E.	N.E.
Xylene	1330-20-7	10.0	100 ppm	150 ppm	100 ppm	N.E.
n-Butyl Acetate	123-86-4	10.0	150 ppm	200 ppm	150 ppm	N.E.
Mineral Spirits	64742-88-7	5.0	100 ppm	N.E.	100 ppm	N.E.
Talc	14807-96-6	5.0	2 mg/m3	N.E.	0.1 mg/m3 [Respirable]	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	125 ppm	100 ppm	N.E.
Barium Sulfate	7727-43-7	5.0	10 mg/m3	N.E.	15 mg/m3 [Total Dust]	N.E.
Carbon Black	1333-86-4	5.0	3 mg/m3	N.E.	3.5 mg/m3	N.E.

#### 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:** 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. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

**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

**Flash Point, °F** -156 (Calculated)

**Extinguishing Media:** Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, 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 due to buildup of steam. 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. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted. Keep containers tightly closed.

**SPECIAL FIREFIGHTING PROCEDURES:** Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. 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. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. 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. 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. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. 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 NFPA Class I flammable liquids. 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



**ENGINEERING CONTROLS:** Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure 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.

**SKIN PROTECTION:** Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

**EYE PROTECTION:** Use safety eyewear designed to protect against splash of liquids.

**OTHER PROTECTIVE EQUIPMENT:** 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>Vapor Density</b>	Heavier than Air	<b>Odor:</b>	Solvent Like
<b>Appearance:</b>	Aerosolized Mist	<b>Evaporation Rate:</b>	Faster than Ether
<b>Solubility in Water:</b>	Slight	<b>Freeze Point:</b>	N.D.
<b>Specific Gravity:</b>	0.764	<b>pH:</b>	N.A.
<b>Physical State:</b>	Liquid		

(See section 16 for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** Avoid temperatures above 120 ° F. Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

**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

<b>Chemical Name</b>	<b>LD50</b>	<b>LC50</b>
Acetone	5800 mg/kg (Rat)	50100 mg/m3 (Rat, 8Hr)
Liquefied Petroleum Gas	N.E.	N.E.
Medium Oil Alkyd	N.E.	N.E.
Xylene	4300 mg/kg (Rat, Oral)	5000 ppm (Rat, Inhalation, 4Hr)
n-Butyl Acetate	13100 mg/kg (Rat, Oral)	2000 ppm (Rat, Inhalation, 4Hr)
Mineral Spirits	>5000 mg/kg (Rat, Oral)	>1400 ppm (Rat, Inhalation, 4Hr)
Talc	N.E.	TCLo: 11 mg/m3 (Inhalation)
Ethylbenzene	3500 mg/kg (Rat, Oral)	N.E.
Barium Sulfate	N.E.	N.E.
Carbon Black	>8000 mg/kg (Rat, Oral)	N.E.

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** 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>
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	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>
Xylene	1330-20-7
Ethylbenzene	100-41-4
Toluene	108-88-3

#### 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:

No TSCA 12(b) components exist in this product.

### International Regulations:

#### CANADIAN WHMIS:

This SDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

Canadian WHMIS Class: AB5 D2A

**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:** 524

**REASON FOR REVISION:** Regulatory Update

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.

## 600°F RTV Silicone Sealant

Item 76RT, 76R, 76B

- Forms a permanent, elastic rubbery seal
- Does not require heat to cure
- Cures by a reaction with moisture in the air
- Use indoors or outdoors
- Available in Black or Red



### Description:

Rutland 600°F RTV High Heat Silicone Sealant is a neutral-cure (no odor) ultra-performance sealant. It forms a tough rubbery seal, and keeps its flexibility even in heat environments up to 550°F continuous and 600°F intermittently for one hour.

### Performance Characteristics:

- Remains flexible even in high temperatures
- No harsh odor
- Non corrosive to copper or galvanized metal
- Excellent chemical resistance
- Meets or exceeds specifications:  
Fed. Spec. TTS-001543C Class A, TTS-00230C Class A, ASTM C 920-86.

### Recommended Uses:

Ideal for use on chimney tops, fireplace inserts, pellet stoves, glass fireplace doors, gas fireplace inserts, and zero clearance units. Use it anywhere the best hi-temp silicone is required. It adheres to glass, metal, plastic, fiberglass, aluminum, wood, brick and slate. The perfect choice for use in confined areas because it does not have a harsh odor.

### Surface Prep:

Surface must be clean, dry and free of dirt, oil and grease. Clean surfaces to be bonded with chlorinated solvent or naphtha for best adhesion.

### Application:

Remove cap and cut nozzle to desired size opening at an angle. If using cartridge, puncture inner seal and put cartridge in a standard caulking gun. Apply by pushing sealant ahead of nozzle. It cures tack-free in minutes, and usually fully cured in 24 hours.

### Coverage:

55 feet of 3/16" bead per 10.3 fl oz. cartridge

### Clean up:

Uncured product may be removed with naphtha, MEK or 1,1,1 trichloroethane. When cured, it requires mechanical removal.

### Typical Physical Properties:

Application Temperature	30°F to 100°F
Flashpoint	250°F minimum
Tooling Time	5 minutes
Tack-free Time	12 minutes
Cure Time	Usually 24 hours, optimal adhesion after 3 days
Elongation	400%
Joint movement capability	±25%
Hardness (Shore A)	30
Tensile Strength	280 psi
Odor	Slightly sweet smelling
Color	Dark red or Black
Storage/Handling	Store below 90°F

### Limitations:

It can not be painted. Keep out of direct contact with flame. One hour of heat aging at 600°F results in a slight reduction in product hardness and elongation specifications.

**Warranty and Limited Remedy:**

This product will be free from defects in material and manufacture for a period of eighteen (18) months from date of manufacture. Rutland Fire Clay Company makes no other warranties including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. User is responsible for determining whether the Rutland Fire Clay Company product is fit for a particular purpose and suitable for user's application. If this Rutland Fire Clay Company product is defective within the warranty period stated above, your exclusive remedy and Rutland Fire Clay Company's sole obligation shall be, at Rutland Fire Clay Company's option, to replace the Rutland Fire Clay Company product or refund the purchase price of the Rutland Fire Clay Company product.

**Limitation of Liability:**

Except where prohibited by law, Rutland Fire Clay Company will not be liable for any loss or damage arising from this Rutland Fire Clay Company product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

**CAUTIONS:**

**Direct contact with uncured sealant irritates eyes and may irritate skin. Overexposure to vapor may irritate eyes, nose and throat. Avoid eye and skin contact. Use with adequate ventilation. Do not handle contact lenses with sealant on heads. In case of eye contact, flush with water for at least 15 minutes. Obtain medical attention. In case of skin contact, remove from skin and flush skin with water.**

**KEEP OUT OF REACH OF CHILDREN**



## Material Safety Data Sheet

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### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Product Identification

**Product ID:** 156.233A110  
**Product Name:** SEALTECH EXT SLVNT WTRPRFR  
**Product Use:** Paint product.  
**Print date:** 14/Jul/2013  
**Revision Date:** 14/Jul/2013

#### Company Identification

The Valspar Corporation - Architectural Coatings Division  
1191 Wheeling Road  
Wheeling, IL 60090

**Manufacturer's Phone:** 1-847-520-8580

**24-Hour Medical Emergency Phone:** 1-888-345-5732

### 2. HAZARDS IDENTIFICATION

#### Primary Routes of Exposure:

Inhalation  
Ingestion  
Skin absorption

#### Eye Contact:

- Moderate eye irritation

#### Skin Contact:

- Dermatitis
- Causes skin irritation.
- May cause defatting of the skin.

#### Ingestion:

- Irritation of the mouth, throat, and stomach.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

**Inhalation:**

- Causes respiratory tract irritation.
- Harmful by inhalation.

**Target Organ and Other Health Effects:**

- Causes headache, drowsiness or other effects to the central nervous system.

**This product contains ingredients that may contribute to the following potential chronic health effects:**

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

**3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS**

<b>Ingredient Name CAS-No.</b>	<b>Approx. Weight %</b>	<b>Chemical Name</b>
MINERAL SPIRITS 64742-47-8	65 - 70	Petroleum distillates, hydrotreated light
PROPRIETARY ADDITIVE	1 - 5	PROPRIETARY ADDITIVE
STODDARD SOLVENT 8052-41-3	1 - 5	Stoddard solvent

If this section is blank there are no hazardous components per OSHA guidelines.

**4. FIRST AID MEASURES****Eye Contact:**

Get medical attention, if symptoms develop or persist. Immediately flush eye(s) with plenty of water. Remove any contact lenses and open eyes wide apart.

**Skin Contact:**

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

**Ingestion:**

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

**Inhalation:**

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately.

**Medical conditions aggravated by exposure:**

Any respiratory or skin condition.

**5. FIRE FIGHTING MEASURES**

Flash point (Fahrenheit):	101
Flash point (Celsius):	38
Lower explosive limit (%):	1
Upper explosive limit (%):	12
Autoignition temperature:	not determined
Sensitivity to impact:	no

## 5. FIRE FIGHTING MEASURES

Sensitivity to static discharge:

Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7. See Section 10.

Hazardous combustion products:

### Unusual fire and explosion hazards:

None known.

### Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

### Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

## 6. ACCIDENTAL RELEASE MEASURES

### Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

## 7. HANDLING AND STORAGE

### Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

## 8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

### Personal Protective Equipment

#### Eye and face protection:

Wear safety glasses or goggles to protect against exposure.

#### Skin protection:

Appropriate chemical resistant gloves should be worn.

#### Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas.

#### Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

#### Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

### Exposure Guidelines



## OSHA Permissible Exposure Limits (PEL's)

<b>Ingredient Name CAS-No.</b>	<b>Approx. Weight %</b>	<b>TWA (final)</b>	<b>Ceilings limits (final)</b>	<b>Skin designations</b>
STODDARD SOLVENT 8052-41-3	1 - 5	2900 mg/m <sup>3</sup> TWA 500 ppm TWA		

## ACGIH Threshold Limit Value (TLV's)

<b>Ingredient Name CAS-No.</b>	<b>Approx. Weight %</b>	<b>TWA</b>	<b>STEL</b>	<b>Ceiling limits</b>	<b>Skin designations</b>
STODDARD SOLVENT 8052-41-3	1 - 5	100 ppm TWA			

## 9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	2 mmHg @ 68°F (20°C)
Vapor density (air = 1.0):	5.1
Boiling point:	302°F (150°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	6.75
Evaporation rate (butyl acetate = 1.0):	1
Flash point (Fahrenheit):	101
Flash point (Celsius):	38
Lower explosive limit (%):	1
Upper explosive limit (%):	12
Autoignition temperature:	not determined

## 10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide.

<b>Sensitivity to static discharge:</b>	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
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## 11. TOXICOLOGICAL INFORMATION

<b>Ingredient Name CAS-No.</b>	<b>Approx. Weight %</b>	<b>NIOSH - Selected LD50s and LC50s</b>
MINERAL SPIRITS 64742-47-8	65 - 70	> 2000 mg/kg Dermal LD50 Rabbit > 5.2 mg/L Inhalation LC50 Rat 4 h > 5000 mg/kg Oral LD50 Rat

### Mutagens/Teratogens/Carcinogens:

## 12. ECOLOGICAL DATA

No information on ecology is available.

## 13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

## 14. TRANSPORTATION INFORMATION

### U.S. Department of Transportation

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	COMBUSTIBLE LIQUID
Packing Group:	III

### U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

### Reportable Quantity Description:

### International Air Transport Association (IATA):

Proper shipping name:	Paint
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### International Maritime Organization (IMO):

Proper shipping name:	PAINT
Marine Pollutant	No

## 15. REGULATORY INFORMATION

### U.S. FEDERAL REGULATIONS:

#### SARA 311/312 Hazard Class:

Acute:	yes
Chronic:	yes
Flammability:	yes
Reactivity:	no
Sudden Pressure:	no

### U.S. STATE REGULATIONS:

#### Right to Know:

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

#### Pennsylvania Right To Know:

MINERAL SPIRITS	64742-47-8
PROPRIETARY ADDITIVE	Trade Secret
STODDARD SOLVENT	8052-41-3

#### Additional Non-Hazardous Materials

PROPRIETARY OIL	Trade Secret
PROPRIETARY RESIN	Trade Secret

**INTERNATIONAL REGULATIONS - Chemical Inventories****US TSCA Inventory:**

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

**Canada Domestic Substances List:**

All components of this product are listed on the Domestic Substances List.

**16. OTHER INFORMATION****HMIS Codes**

<b>Health:</b>	2*
<b>Flammability:</b>	2
<b>Reactivity:</b>	1
<b>PPE:</b>	X - See Section 8 for Personal Protective Equipment (PPE).

**Abbreviations:**

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

**Disclaimer:**

The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

**Preparation Information:**

Prepared By:	Regulatory Affairs Department
Print date:	14/Jul/2013
Revision Date:	14/Jul/2013



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ General Purpose Spray Adhesive 45  
**MANUFACTURER:** 3M  
**DIVISION:** Construction and Home Improvement Markets

**ADDRESS:** 3M Center  
St. Paul, MN 55144-1000

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

**Issue Date:** 04/06/09  
**Supersedes Date:** 10/22/08

**Document Group:** 23-7931-1

**Product Use:**

Intended Use: Adhesive aerosol

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
NJ Trade Secret Number 04499600-6503	Trade Secret	15 - 25
Propane	74-98-6	15 - 25
2-Methylpentane	107-83-5	10 - 20
Acetone	67-64-1	10 - 20
Cyclohexane	110-82-7	10 - 20
2,3-Dimethylbutane	79-29-8	3 - 7
3-Methylpentane	96-14-0	3 - 7
2,2-Dimethylbutane	75-83-2	1 - 5
Hexane	110-54-3	0.1 - 1.5

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Aerosol

**Odor, Color, Grade:** clear, sweet fruity odor

**General Physical Form:** Gas

**Immediate health, physical, and environmental hazards:** Aerosol container contains flammable gas under pressure. Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Aerosol container contains flammable material under pressure. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

## **3.2 POTENTIAL HEALTH EFFECTS**

### **Eye Contact:**

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

### **Skin Contact:**

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

### **Inhalation:**

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Intentional concentration and inhalation may be harmful or fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Prolonged or repeated exposure may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

May be absorbed following inhalation and cause target organ effects.

### **Ingestion:**

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

### **Target Organ Effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause:

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. Get immediate medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>No Data Available</i>
Flash Point	-50 °F [ <i>Test Method:</i> Closed Cup]
Flammable Limits - LEL	1.1 % volume
Flammable Limits - UEL	12.8 % volume
OSHA Flammability Classification:	Class IA Flammable Liquid

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Water may be used to blanket the fire. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Aerosol container contains flammable material under pressure.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Accidental Release Measures:** If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available.

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill.

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. Cover spill area with a fire-extinguishing foam. An aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## **SECTION 7: HANDLING AND STORAGE**

### **7.1 HANDLING**

Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Do not pierce or burn container, even after use. Do not spray near flames or sources of ignition. Avoid breathing of vapors, mists or spray. Avoid skin contact. Aerosol container contains flammable gas under pressure. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Vapors may ignite explosively. May cause flash fire. Prevent build-up of vapors - open all windows and doors. Maintain vapor concentrations below recommended exposure limits. Use only with cross-ventilation. Without adequate ventilation, vapors may settle in low-lying areas. Keep away from heat, sparks, and open flame. Do not smoke or ignite matches, lighters, etc. For industrial or professional use only.

### **7.2 STORAGE**

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 ENGINEERING CONTROLS**

Use with appropriate local exhaust ventilation. Use in an enclosed process area is recommended. Do not use in a confined area or areas with little or no air movement. Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

### **8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

#### **8.2.1 Eye/Face Protection**

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles.

#### **8.2.2 Skin Protection**

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Nitrile Rubber, Polyvinyl Alcohol (PVA).

#### **8.2.3 Respiratory Protection**

Avoid breathing of vapors, mists or spray.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

#### 8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

### 8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
Acetone	ACGIH	TWA	500 ppm	Table A4
Acetone	ACGIH	STEL	750 ppm	Table A4
Acetone	OSHA	TWA, Vacated	750 ppm	
Acetone	OSHA	TWA	1000 ppm	Table Z-1
Acetone	OSHA	STEL, Vacated	1000 ppm	
Cyclohexane	ACGIH	TWA	100 ppm	
Cyclohexane	OSHA	TWA	300 ppm	Table Z-1
Hexane	ACGIH	TWA	50 ppm	Skin Notation*
Hexane	OSHA	TWA, Vacated	50 ppm	Table Z-1A
Hexane	OSHA	TWA	500 ppm	Table Z-1A
HEXANE (ISOMERS OTHER THAN N-HEXANE)	ACGIH	TWA	500 ppm	
HEXANE (ISOMERS OTHER THAN N-HEXANE)	ACGIH	STEL	1000 ppm	
Propane	ACGIH	TWA	1000 ppm	
Propane	OSHA	TWA	1000 ppm	Table Z-1

\* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

#### SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Specific Physical Form:</b>	Aerosol
<b>Odor, Color, Grade:</b>	clear, sweet fruity odor
<b>General Physical Form:</b>	Gas
<b>Autoignition temperature</b>	No Data Available
<b>Flash Point</b>	-50 °F [Test Method: Closed Cup]
<b>Flammable Limits - LEL</b>	1.1 % volume
<b>Flammable Limits - UEL</b>	12.8 % volume
<b>Boiling point</b>	Not Applicable
<b>Density</b>	0.745 g/ml
<b>Vapor Density</b>	2.97 [Ref Std: AIR=1]



Specific Gravity	0.745 [Ref Std: WATER=1]
pH	Not Applicable
Melting point	Not Applicable
Solubility in Water	Nil
Evaporation rate	1.90 [Ref Std: ETHER=1]
Hazardous Air Pollutants	<=1.5 % weight [Test Method: Calculated]
Volatile Organic Compounds	No Data Available
Percent volatile	75 - 85 % weight
VOC Less H2O & Exempt Solvents	No Data Available
Viscosity	Not Applicable

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:** Heat; Sparks and/or flames

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

### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Aldehydes	During Combustion
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

## SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill.  
 RECYCLE EMPTY AEROSOL CONTAINERS WHERE AVAILABLE.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable)

**Since regulations vary, consult applicable regulations or authorities before disposal.**

## **SECTION 14: TRANSPORT INFORMATION**

**Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.**

## **SECTION 15: REGULATORY INFORMATION**

### **US FEDERAL REGULATIONS**

Contact 3M for more information.

#### **311/312 Hazard Categories:**

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

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

<u><b>Ingredient</b></u>	<u><b>C.A.S. No</b></u>	<u><b>% by Wt</b></u>
Cyclohexane	110-82-7	10 - 20
Hexane	110-54-3	0.1 - 1.5

### **STATE REGULATIONS**

Contact 3M for more information.

### **CHEMICAL INVENTORIES**

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

Contact 3M for more information.

**INTERNATIONAL REGULATIONS**

Contact 3M for more information.

**WHMIS:** Hazardous

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

**SECTION 16: OTHER INFORMATION****NFPA Hazard Classification**

**Health: 2 Flammability: 4 Reactivity: 0 Special Hazards: None**  
**Aerosol Storage Code: 3**

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.

**Revision Changes:**

Section 1: Product name was modified.

Section 1: Division name was modified.

Copyright was modified.

Page Heading: Product name was modified.

Section 2: Ingredient table was modified.

Section 15: TSCA section 12[b] text was deleted.

Section 15: TSCA section 12[b] information was deleted.

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**3M MSDSs are available at [www.3M.com](http://www.3M.com)**

MATERIAL SAFETY DATA SHEET : 00000159

U.S.E HICKSON

15 WALLSEND DRIVE

SCARBOROUGH ONTARIO M1E 3X6

(416) 724-2000

Product: STONE MASON ACRYLI BOND

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER.....U.S.E HICKSON PRODUCTS LTD.

15 WALLSEND DRIVE

SCARBOROUGH, ON

M1E 3X6

416-724-2000

PRODUCT NAME.....ACRYLI BOND.

PRODUCT USES.....CEMENT MODIFIER.

CHEMICAL FAMILY.....ACRYLIC POLYMER.

MATERIAL USE.....CONSTRUCTION INDUSTRY.

SECTION 02: COMPOSITION/INFORMATION ON INGREDIENTS

%	CAS / TLV	LD/50, ROUTE, SPECIES	LC/50, ROUTE, SPECIES
---	-----------	-----------------------	-----------------------

ACRYLIC POLYMER

25-27	ACR CAS	1	7
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	ACR TLV	2	8
		3	9
AMMONIA			
0.1 MAX	7664-41-7	ORAL/RAT	NOT INDICATED
	25 mg/m3	350 mg/kg	
WATER			
73-75	7732-18-5	NOT INDICATED	NOT INDICATED
	NOT INDICATED		

---

### SECTION 03: HAZARDS IDENTIFICATION

---

#### PRIMARY ROUTE(S) OF ENTRY.....

SKIN CONTACT.....PROLONGED OR REPEATED SKIN CONTACT CAN  
CAUSE SLIGHT SKIN IRRITATION.

SKIN ABSORPTION.....UNLIKELY TO BE ABSORBED THROUGH SKIN.

INHALATION.....INHALATION OF VAPOR OR MIST CAN CAUSE  
HEADACHE, NAUSEA, IRRITATION OF NOSE,  
THROAT AND LUNGS.

INGESTION.....NOT LIKELY TO OCCUR.

EFFECTS OF ACUTE EXPOSURE.....THE INFORMATION SHOWN BELOW IS BASED ON  
THE TOXICITY PROFILES FOR A NUMBER OF  
ACRYLIC EMULSIONS THAT ARE COMPOSITIONA  
LLY SIMILAR TO THIS PRODUCT. TYPICAL DATA  
ARE: ORAL LD50-RAT:>5000mg/Kg. DERMAL  
LD50-RABBIT:>5000mg/Kg. SKIN  
IRRITATION-RABBIT:PRACTICALLY

NON-IRRITATING. EYE IRRITATION-RABBIT:1

NCONSEQUENTIAL IRRITATION.

EYE CONTACT.....DIRECT CONTACT WITH MATERIAL CAN CAUSE  
SLIGHT IRRITATION.

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#### SECTION 04: FIRST AID MEASURES

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EYE CONTACT.....FLUSH WITH COPIOUS AMOUNTS OF WATER FOR 15  
MINUTES. IF IRRITATION PERSISTS CONSULT A  
PHYSICIAN.

SKIN CONTACT.....WASH WITH SOAP AND WATER. CONSULT A  
PHYSICIAN IF IRRITATION PERSISTS.

INHALATION.....MOVE TO FRESH AIR.

INGESTION.....IF SWALLOWED, SEEK MEDICAL ATTENTION. DO  
NOT INDUCE VOMITING UNLESS DIRECTED TO DO  
SO BY MEDICAL PERSONNEL. NEVER GIVE  
ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

---

#### SECTION 05: FIRE FIGHTING MEASURES

---

FLASH POINT (C), METHOD.....INCOMBUSTIBLE.

AUTO IGNITION TEMPERATURE.....NOT APPLICABLE.

LOWER FLAMMABLE LIMIT (% VOL).....NOT APPLICABLE.

UPPER FLAMMABLE LIMIT (% VOL).....NOT APPLICABLE.

EXTINGUISHING MEDIA.....USE EXTINGUISHING MEDIA FOR SURROUNDING  
FIRE.

HAZARDOUS COMBUSTION PRODUCTS.....MATERIAL CAN SPLATTER ABOVE 100C/212F.  
POLYMER FILM CAN BURN.

SENSITIVITY TO MECHANICAL.....NO.

IMPACT

SENSITIVITY TO STATIC.....NO.

DISCHARGE

---

#### SECTION 06: ACCIDENTAL RELEASE MEASURES

---

LEAK/SPILL.....CAUTION: KEEP SPILLS AND CLEANING RUNOFF  
OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF  
WATER.KEEP SPECTATORS AWAY. FLOOR MAY BE  
SLIPPERY; USE CARE TO AVOID FALLING.  
CONTAIN SPILLS IMMEDIATELY WITH INERT  
MATERIALS (e.g. SAND, EARTH). TRANSFER  
LIQUIDS AND SOLID DIKING MATERIAL TO  
SEPARATE SUITABLE CONTAINERS FOR RECOVERY  
OR DISPOSAL.APPROPRIATE PROTECTIVE  
EQUIPMENT MUST BE WORN WHEN HANDLING A  
SPILL OF THIS MATERIAL. SEE SECTION 8 FOR  
RECOMMENDATIONS. IF EXPOSED TO MATERIAL  
DURING CLEAN-UP OPERATIONS, SEE SECTION 4  
FOR ACTIONS TO FOLLOW.

---

#### SECTION 07: HANDLING AND STORAGE

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HANDLING PROCEDURES.....MONOMER VAPORS CAN BE EVOLVED WHEN  
MATERIAL IS HEATED DURING PROCESSING  
OPERATIONS. SEE SECTION 8 FOR TYPES OF  
VENTILATION REQUIRED.

STORAGE NEEDS.....KEEP FROM FREEZING; MATERIAL MAY

COAGULATE. THE MINIMUM RECOMMENDED STORAGE

TEMPERATURE FOR THIS MATERIAL IS 1C/34F.

THE MAXIMUM RECOMMENDED STORAGE

TEMPERATURE FOR THIS MATERIAL IS 49C/120F.

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SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

---

PROTECTIVE EQUIPMENT.....

EYE/TYPE.....USE CHEMICAL SPLASH GOGGLES (ANSI Z87.1 OR

APPROVED EQUIVALENT).

RESPIRATORY/TYPE.....NONE REQUIRED IF AIRBORN CONCENTRATIONS

ARE MAINTAINED BELOW THE TWA/TLS'S LISTED

IN SECTION 2. FOR AIRBORNE CONCENTRATIONS

UP TO 10 TIMES THE TWA/TLV'S LISTED IN

SECTION 2 WEAR A MSHA/NIOSH APPROVED (OR

EQUIVALENT) HALF-MASK, AIR-PURIFYING

RESPIRATOR. AIR-PURIFYING RESPIRATORS

SHOULD BE EQUIPPED WITH ORGANIC VAPOR

CARTRIDGES.

GLOVES/ TYPE.....USE NEOPRENE GLOVES.

CLOTHING/TYPE.....ADEQUATE TO AVOID SKIN CONTACT.

FOOTWEAR/TYPE.....ADEQUATE TO AVOID SKIN CONTACT.

OTHER/TYPE.....EYE WASH FACILITY SHOULD BE CLOSE IN

PROXIMITY.

VENTILATION REQUIREMENTS.....USE LOCAL EXHAUST VENTILATION WITH A

MINIMUM CAPTURE VELOCITY OF 100 FT/MIN.

(0.5 M/SEC.) AT THE POINT OF VAPOR



EVOLUTION. REFER TO THE CURRENT EDITION OF  
INDUSTRIAL VENTILATION: A MANUAL OF  
RECOMMENDED PRACTICE PUBLISHED BY AMERICAN  
CONFERENCE OF GOVERNMENTAL INDUSTRIAL  
HYGIENISTS FOR INFORMATION ON THE DESIGN,  
INSTALLATION, USE, AND MAINTENANCE OF  
EXHAUST SYSTEMS.

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SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

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PHYSICAL STATE.....LIQUID.  
ODOR.....AMMONIA ODOR.  
SPECIFIC GRAVITY.....1 TO 1.2.  
VAPOR PRESSURE (mm Hg).....17 MM Hg @20C/68F WATER.  
VAPOUR DENSITY (AIR=1).....<1 WATER.  
EVAPORATION RATE.....<1 WATER.  
BOILING POINT (deg C).....100C/212F WATER.  
pH.....9.5 TO 10.  
SOLUBILITY IN WATER (% W/W).....DILUTABLE.  
COEFFICIENT OF WATER\OIL.....NOT APPLICABLE.  
DISTRIBUTION  
FREEZING POINT.....0 deg C.  
VISCOSITY.....50 CPS MAXIMUM.  
MELTING POINT (deg C).....0C/32F WATER.

---

SECTION 10: STABILITY AND REACTIVITY

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INCOMPATIBILITY.....THERE ARE NO KNOWN MATERIALS WHICH ARE

INCOMPATIBLE WITH THIS PRODUCT.

REACTIVITY CONDITIONS ?.....THIS MATERIAL IS CONSIDERED STABLE.

HOWEVER, AVOID TEMPERATURES ABOVE  
177C/350F, THE ONSET OF POLYMER  
DECOMPOSITION. THERMAL DECOMPOSITION IS  
DEPENDENT ON TIME AND TEMPERATURE.

HAZARDOUS PRODUCTS OF.....PRODUCT WILL NOT UNDERGO POLYMERIZATION  
DECOMPOSITION .THERMAL DECOMPOSITION MAY YIELD ACRYLIC  
MONOMERS.

---

#### SECTION 11: TOXICOLOGICAL INFORMATION

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EXPOSURE LIMIT OF MATERIAL.....SEE HAZARDOUS INGREDIENTS SECTION (2).

IRRITANCY OF MATERIAL.....REFER TO ROUTE OF ENTRY.

SENSITIZING CAPABILITY OF.....IN SUSCEPTIBLE INDIVIDUALS.

MATERIAL

CARCINOGENICITY OF MATERIAL.....THIS MATERIAL IS NOT CONSIDERED TO BE A  
CARCINOGEN.

---

#### SECTION 12: ECOLOGICAL INFORMATION

---

ENVIRONMENTAL.....DISPOSE WASTE IN ACCORDANCE WITH  
MUNICIPAL, PROVINCIAL AND FEDERAL  
REGULATIONS.

BIODEGRADABILITY.....NOT TESTED.

---

#### SECTION 13: DISPOSAL CONSIDERATIONS

---

WASTE DISPOSAL.....COAGULATE THE EMULSION BY THE STEPWISE  
ADDITION OF FERRIC CHLORIDE AND LIME.  
REMOVE THE CLEAR SUPERNATANT AND FLUSH TO  
A CHEMICAL SEWER. INCINERATE LIQUID AND  
CONTAMINATED SOLIDS IN ACCORDANCE WITH  
LOCAL, PROVINCIAL, AND FEDERAL REGULATIONS.

---

SECTION 14: TRANSPORT INFORMATION

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T.D.G. CLASSIFICATION.....NOT REGULATED.

---

SECTION 15: REGULATORY INFORMATION

---

WHMIS CLASSIFICATION.....NOT A CONTROLLED PRODUCT.

---

SECTION 16: OTHER INFORMATION

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NOTICE.....CANUTEC EMERGENCY (613) 996-6666. THE DATA  
INCLUDED HEREIN ARE PRESENTED ACCORDING TO  
U.S.E HICKSON PRODUCTS LTD.'S PRACTICES  
CURRENT AT THE TIME OF PREPARATION HEREOF,  
ARE MADE AVAILABLE SOLELY FOR THE  
CONSIDERATION, INVESTIGATION AND  
VERIFICATION OF THE ORIGINAL RECIPIENTS  
HEREOF AND DO NOT CONSTITUTE A  
REPRESENTATION OR WARRANTY FOR WHICH  
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RECIPIENT OF THIS DATA TO REMAIN CURRENTLY  
INFORMED ON CHEMICAL HAZARD INFORMATION,  
TO DESIGN AND UPDATE IT'S OWN PROGRAM AND  
TO COMPLY WITH ALL FEDERAL, PROVINCIAL AND  
LOCAL LAWS AND REGULATIONS APPLICABLE TO  
SAFETY, OCCUPATIONAL HEALTH, RIGHT-TO-KNOW  
AND ENVIRONMENTAL PROTECTION.

PREPARED BY.....ALEXANDRA PAVLIUC. PROCESS DEVELOPMENT.

DATED.....04052001



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M(TM) Super 77 Classic Spray Adhesive

**MANUFACTURER:** 3M

**DIVISION:** Industrial Adhesives and Tapes Division

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

**EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)**

**Issue Date:** 07/12/13

**Supersedes Date:** 11/19/12

**Document Group:** 11-4257-9

#### Product Use:

Intended Use: Industrial Aerosol Adhesive

Limitations on Use: Sale and use severely restricted due to high VOC in CT, DE, ME, MD, NH, NJ, NY, PA, RI, VA, DC, in CA per CARB

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
N.J.T.S. Reg No. 04499600-5776P	Trade Secret	15 - 40
2-Methylpentane	107-83-5	0 - 15
3-Methylpentane	96-14-0	0 - 15
2,3-Dimethylbutane	79-29-8	0 - 15
Neohexane	75-83-2	0 - 15
Pentane	109-66-0	1 - 5
Cyclohexane	110-82-7	10 - 30
Isobutane	75-28-5	7 - 13
Propane	74-98-6	7 - 13
Dimethyl ether	115-10-6	7 - 13
Hexane	110-54-3	< 1.5

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Odor, Color, Grade:** light cream colored, sweet/fruity odor.

**General Physical Form:** Gas

**Immediate health, physical, and environmental hazards:** Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

### 3.2 POTENTIAL HEALTH EFFECTS

**Eye Contact:**

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Skin Contact:**

Prolonged or repeated exposure may cause:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

**Inhalation:**

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Intentional concentration and inhalation may be harmful or fatal.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

May be absorbed following inhalation and cause target organ effects.

**Ingestion:**

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

**Target Organ Effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause:

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

### 3.3 POTENTIAL ENVIRONMENTAL EFFECTS

HALOGEN ANALYSIS: The dry ingredients of 3M Super 77 Spray Adhesive were subjected to combustion in a Parr oxygen bomb. The decomposition products were analyzed by Ion Chromatographic analysis for halogen and sulfur content. Chlorine 0.05%; Fluorine <0.001%, Bromine <0.001%; Sulfur <0.035%.

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are

followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

**Inhalation:** Remove person to fresh air. Get immediate medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## 4.2 NOTE TO PHYSICIANS

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	-42.00 °F [ <i>Test Method:</i> Tagliabue Closed Cup]
<b>Flammable Limits(LEL)</b>	Approximately 1.5 % volume
<b>Flammable Limits(UEL)</b>	Approximately 8.6 % volume
<b>OSHA Flammability Classification:</b>	Class IA Flammable Liquid

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains gas under pressure. Aerosol container contains flammable material under pressure.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available.

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

### 6.2. Environmental precautions

Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

### Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Cover spill area with a fire-extinguishing foam. An aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue. Seal the container.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## **SECTION 7: HANDLING AND STORAGE**

### **7.1 HANDLING**

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Do not pierce or burn container, even after use. No smoking while handling this material. Avoid breathing of vapors, mists or spray. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Vapors may ignite explosively. May cause flash fire. Prevent build-up of vapors - open all windows and doors. Maintain vapor concentrations below recommended exposure limits. Use only with cross-ventilation. Without adequate ventilation, vapors may settle in low-lying areas. Keep away from heat, sparks, and open flame. Do not smoke or ignite matches, lighters, etc. Avoid contact with oxidizing agents. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment.

### **7.2 STORAGE**

Store away from acids. Store away from heat. Store out of direct sunlight. Store away from oxidizing agents.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 ENGINEERING CONTROLS**

Use with appropriate local exhaust ventilation. Use in an enclosed process area is recommended. Use with functioning spray booth or local exhaust. Do not use in a confined area or areas with little or no air movement. Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment. Do not use in a confined area or areas with little or no air movement. If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate to control vapor concentrations below recommended exposure limits and/or control spray or mist.

### **8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

#### **8.2.1 Eye/Face Protection**

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields

.

#### **8.2.2 Skin Protection**

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Nitrile Rubber

.

#### **8.2.3 Respiratory Protection**



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 organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer. Organic vapor cartridges may have short service life.

#### 8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Not applicable.

### 8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
2,3-Dimethylbutane	ACGIH	TWA	500 ppm	
2,3-Dimethylbutane	ACGIH	STEL	1000 ppm	
2-Methylpentane	ACGIH	TWA	500 ppm	
2-Methylpentane	ACGIH	STEL	1000 ppm	
3-Methylpentane	ACGIH	TWA	500 ppm	
3-Methylpentane	ACGIH	STEL	1000 ppm	
Cyclohexane	ACGIH	TWA	100 ppm	
Cyclohexane	OSHA	TWA	1050 mg/m3	
Dimethyl ether	AIHA	TWA	1880 mg/m3	
Dimethyl ether	CMRG	TWA	1000 ppm	
Hexane	ACGIH	TWA	50 ppm	Skin Notation*
Hexane	OSHA	TWA	1800 mg/m3	
Isobutane	ACGIH	STEL	1000 ppm	
Neohexane	ACGIH	TWA	500 ppm	
Neohexane	ACGIH	STEL	1000 ppm	
Pentane	ACGIH	TWA	600 ppm	
Pentane	OSHA	TWA	2950 mg/m3	
Propane	OSHA	TWA	1800 mg/m3	

\* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

#### SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Odor, Color, Grade:</b>	light cream colored, sweet/fruity odor.
<b>General Physical Form:</b>	Gas
<b>Autoignition temperature</b>	No Data Available
<b>Flash Point</b>	-42.00 °F [Test Method: Tagliabue Closed Cup]
<b>Flammable Limits(LEL)</b>	Approximately 1.5 % volume
<b>Flammable Limits(UEL)</b>	Approximately 8.6 % volume
<b>Density</b>	0.697 g/ml
<b>Vapor Density</b>	2.97 [Ref Std: AIR=1]

Specific Gravity	0.697 [Ref Std: WATER=1]
pH	Approximately 6.7 Units not avail. or not appl.
Melting point	No Data Available
Solubility in Water	Nil
Evaporation rate	1.90 [Ref Std: ETHER=1]
Hazardous Air Pollutants	<=1.4 % weight [Test Method: Calculated]
Volatile Organic Compounds	527 g/l [Details: EU VOC content]
Kow - Oct/Water partition coef	No Data Available
Percent volatile	75 % weight
VOC Less H2O & Exempt Solvents	527 g/l [Test Method: tested per SCAQMD method 305]
VOC Less H2O & Exempt Solvents	4.4 lb/gal [Test Method: tested per SCAQMD method 305]
VOC Less H2O & Exempt Solvents	84 % [Test Method: tested per SCAQMD method 305]
Viscosity	Not Applicable
Heat of Combustion	<=43.5 kJ/g
Solids Content	13.5 - 17.8 %

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:**

**10.1 Conditions to avoid**

Heat

**10.2 Materials to avoid**

Strong oxidizing agents

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

### Hazardous Decomposition or By-Products

#### Substance

Aldehydes  
Carbon monoxide  
Carbon dioxide  
Toxic Vapor, Gas, Particulate

#### Condition

During Combustion  
During Combustion  
During Combustion  
During Combustion

## SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

Not determined.

## CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Vent cylinder or pressurized container in an operating exhaust hood or remote area. A qualified person should adjust the release rate so gas concentration in ducts is less than 20% of the lower explosive limit (LEL). The LEL is the lowest concentration that can propagate (spread) a flame. Incinerate in a permitted hazardous waste incinerator. For quantities <10 lbs. (5 kg):  
As a disposal alternative, dispose of waste product in a permitted hazardous waste facility. The facility should be equipped to handle gaseous waste. Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill.  
RECYCLE EMPTY AEROSOL CONTAINERS WHERE AVAILABLE.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

## SECTION 14: TRANSPORT INFORMATION

ID Number	UPC	ID Number	UPC
62-4437-4920-5		62-4437-4921-3	
62-4437-4930-4	00-21200-96315-5	62-4437-4935-3	
62-4437-4950-2		62-4437-4955-1	

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## SECTION 15: REGULATORY INFORMATION

### US FEDERAL REGULATIONS

Contact 3M for more information.

#### 311/312 Hazard Categories:

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

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Cyclohexane	110-82-7	10 - 30
Hexane	110-54-3	< 1.5
Hexane (Hexane)	110-54-3	< 1.5

### STATE REGULATIONS

Contact 3M for more information.

### CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information.

**Additional Information:** Synthetic polymer, resin and antioxidant. Not hazardous according to Canadian WHMIS criteria. Non-WHMIS controlled.

## INTERNATIONAL REGULATIONS

Contact 3M for more information.

**WHMIS:** Hazardous

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

## SECTION 16: OTHER INFORMATION

### NFPA Hazard Classification

**Health:** 2 **Flammability:** 4 **Reactivity:** 0 **Special Hazards:** None  
**Aerosol Storage Code:** 3

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:** 2 **Flammability:** 4 **Reactivity:** 0 **Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS®) 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® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

### Revision Changes:

Section 1: Product use information was modified.

Section 8: Exposure guidelines ingredient information was modified.

Copyright was modified.

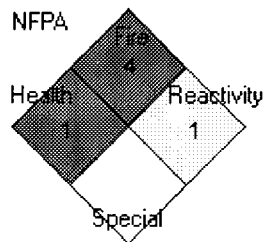
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3M USA MSDSs are available at [www.3M.com](http://www.3M.com)

**MSDS - Material Safety Data Sheet****Product Name:** *Synlube 531 Aerosol***MSDS No.:** 024901**I. Basic Information:**

**Manufacturer:** Synair Corporation  
**Address:** 2003 Amnicola Highway, P.O. Box 5269  
**City, ST Zip:** Chattanooga, TN 37406  
**Phone Number:** 423-698-8801  
**Last Update:** 2/3/99  
**Chemical State:** ☒ Liquid ☐ Gas ☐ Solid  
**Chemical Type:** ☐ Pure ☒ Mixture  
**Transportation Phone Emergency:** Chem-Trec 1-800-424-9300



1	Health
4	Flammability
1	Reactivity
G	Pers. Protection

**II. Ingredients:**

CAS No.	Chemical Name	% Range	EHS	NTP	IARC	SUB	Z	SARA 313	OSHA PEL	ACGIH TLV	Other Limits
811972	1,1,1,2-Tetrafluoroethane	14-16							1000ppm	1000ppm	NE
67641	Acetone	3-6							1000ppm	500ppm	750 ppm
64742956	High Flash Naphtha	3-6							NE	350 ppm	NE
68476857	Liquefied Petroleum Gas	15-18							1000ppm	1000ppm	NE
0	Non-Hazardous Release Blend	3-6							NE	NE	NE
108883	Toluene	47-51						X	100 ppm	50 ppm	150 ppm
1330207	Xylene (mixed isomers)	3-6						X	100 ppm	100 ppm	150 ppm

**III. Hazardous Identification:****Hazard Category:**

☒ Acute ☒ Chronic ☒ Fire ☐ Pressure ☐ Reactive

**Hazardous Identification Information:**

Warning!

Light aliphatic odor.

This material is flammable and may be ignited by heat, sparks, flame, welding arcs or other high temperature sources.

Toluene reports indicate nervous system depression and impaired lung function with excessive exposure.

Deliberate misuse may cause liver, kidney and brain damage.

**IV. First Aid Measures:****Route(s) of Entry:**

Inhalation, Ingestion, Skin and Eye contact.

**Health Hazards (Acute and Chronic):**

# MSDS - Material Safety Data Sheet

**Product Name:** *Synlube 531 Aerosol*

**MSDS No.:** 024901

**Acute (Short-Term)**

Eye and skin contact can cause mild to moderate irritation. Inhalation can cause irritation to the nose, throat and upper respiratory tract.

**Chronic (Delayed)**

Prolonged or repeated skin contact can defat the skin, cause irritation and lead to the development of dermatitis. Inhalation of high concentrations of vapors can cause dizziness, headache and incoordination.

**Signs and Symptoms:**

Contact may cause mild to moderate skin and eye irritation. Inhalation of high concentrations of vapors can cause dizziness, headaches and incoordination.

**Medical Conditions Generally Aggravated by Exposure:**

Persons with asthma-like conditions may experience additional breathing difficulties due to respiratory tract irritation.

**Emergency and First Aid Procedures:**

SKIN CONTACT: Wash affected area with warm soapy water and apply barrier cream.

EYE CONTACT: Flush eyes with water for at least 15 minutes and contact a physician.

INGESTION: Do NOT induce vomiting and contact a physician. Do NOT give anything by mouth to an unconscious person.

INHALATION: Remove person to fresh air. If breathing is difficult, give oxygen and contact a physician.

**Other Health Warnings:**

Toluene reports indicate nervous system depression and impaired lung function with excessive exposure. Deliberate misuse may cause liver, kidney and brain damage. Ingestion can cause nausea, vomiting and gastrointestinal upset.

## V. Fire Fighting Measures:

**Flash Point:** <45°F

**Lower Explosive Limit:** NE

**Upper Explosive Limit:** NE

**Fire Extinguishing Media:** Foam, water spray, carbon dioxide or dry chemical extinguishers.

**Special Fire Fighting Procedures:**

Firefighters should wear a self-contained breathing apparatus and protective clothing to guard against incompletely combusted carbon dioxide.

**Unusual Fire and Explosion:**

In a fire, aerosol cans may explode. Cool cans with water spray and move to safety as soon as possible.

## VI. Accidental Release Measures:

**Steps to be Taken in Case Material is Released or Spilled:**

Remove all sources of ignition. Cover liquid with an absorbent material (sawdust, vermiculite or wet sand). After the material is absorbed scoop up and place in containers for disposal. If original container is damaged, transfer material to a closed metal, glass or plastic container. People performing cleanup should have full protective equipment.

## VII. Handling and Storage:

**Precautions to be Taken:**

Store in a cool dry place away from direct sunlight or above 120°F. Avoid open flames, welding arcs and other high temperature sources. Use in a well ventilated area.

**Other Precautions:**

Do not puncture or incinerate aerosol containers.

# MSDS - Material Safety Data Sheet

**Product Name:** *Synlube 531 Aerosol*

**MSDS No.:** 024901

## VIII. Exposure Controls/Personal Protection:

### Ventilation Requirements:

Recommended to meet TLV limits.  
Mechanical ventilation or exhaust systems may be required.

### Personal Protective Equipment:

RESPIRATORY PROTECTION: If air concentrations exceed established exposure limits, use a supplied air respirator.

PROTECTIVE GLOVES: Impervious rubber gloves.

EYE PROTECTION: Wear safety glasses or goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Protect all exposed skin from liquid contact.

## IX. Physical and Chemical Properties:

**Boiling Point:** NA                      **Melting Point:** NA                      **Evaporation Rate:** <1

**Vapor Pressure (mm Hg.):** NE                      **Vapor Density (AIR = 1):** NE

**Solubility In Water:** Insoluble

**Appearance and Odor:** Light aliphatic odor

**Other Information:** VOLATILITY @75°F: Moderate

PERCENT VOLATILE BY VOLUME(%): 97%

SPECIFIC GRAVITY: 0.85

## X. Stability and Reactivity:

### Stability:

Stable

### Incompatibility (Materials to Avoid):

Acids and strong oxidizing agents.

### Decomposition/By Products:

Hydrogen chloride, small amounts of phosgene and chlorine.

### Hazardous Polymerization:

Will not occur

## XI. Toxicological Information:

None Available

## XII. Ecological Information:

None Available

## XIII. Disposal Considerations:

Waste must be disposed of in accordance with federal, state and local environmental regulations.

**MSDS - Material Safety Data Sheet****Product Name: Synlube 531 Aerosol****MSDS No.: 024901****XIV. Transport Information:**

Box, Aerosols, Flammable

2.1

UN 1950

Hazardous

**XV. Regulatory Information:**

SARA 313 INFORMATION: This product contains the following substances 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:

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Toluene	108-88-3	47-51%
Xylene	1330-20-7	3-6%
Acetone	67-64-1	3-6%

**XVI. Other Information:**

In this document the following abbreviations were used:

NA: Not Applicable

NE: Not Established



MSDS Number: **S3338** \* \* \* \* *Effective Date: 11/09/06* \* \* \* \* *Supersedes: 01/12/04*

**MSDS****Material Safety Data Sheet**

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



Mallinckrodt  
CHEMICALS



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. and Canada  
Chemtec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# SODIUM CHLORIDE

## 1. Product Identification

**Synonyms:** Salt; Rock Salt; Saline; Table Salt

**CAS No.:** 7647-14-5

**Molecular Weight:** 58.44

**Chemical Formula:** NaCl

**Product Codes:**

J.T. Baker: 3624, 3625, 3626, 3627, 3628, 3629, 4058, 4924

Mallinckrodt: 4577, 5519, 7361, 7503, 7532, 7534, 7540, 7544, 7576, 7581, 7713, V482

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Sodium Chloride	7647-14-5	99 - 100%	Yes

## 3. Hazards Identification

### Emergency Overview

**WARNING! CAUSES EYE IRRITATION.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

Health Rating: 1 - Slight

Flammability Rating: 0 - None

Reactivity Rating: 0 - None

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES

Storage Color Code: Green (General Storage)

---

## Potential Health Effects

---

**Inhalation:**

May cause mild irritation to the respiratory tract.

**Ingestion:**

Very large doses can cause vomiting, diarrhea, and prostration. Dehydration and congestion occur in most internal organs. Hypertonic salt solutions can produce violent inflammatory reactions in the gastrointestinal tract.

**Skin Contact:**

May irritate damaged skin; absorption can occur with effects similar to those via ingestion.

**Eye Contact:**

Causes irritation, redness, and pain. (For salt concentrations greater than the normal saline present.)

**Chronic Exposure:**

No information found.

**Aggravation of Pre-existing Conditions:**

No information found.

---

## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

If large amounts were swallowed, give water to drink and get medical advice.

**Skin Contact:**

Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally.

Get medical attention if irritation persists.

---

## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

---

## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Small amounts of residue may be flushed to sewer with plenty of water.

---

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

None established.

### **Ventilation System:**

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

### **Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Wear protective gloves and clean body-covering clothing.

### **Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

### **Appearance:**

White crystals.

### **Odor:**

Odorless.

### **Solubility:**

36g/100cc water @ 20C (68F)

### **Specific Gravity:**

2.16

### **pH:**

6.7 - 7.3 (aqueous solution)

### **% Volatiles by volume @ 21C (70F):**

0

### **Boiling Point:**

1413C (2575F)

### **Melting Point:**

801C (1474F)

### **Vapor Density (Air=1):**

No information found.

### **Vapor Pressure (mm Hg):**

1.0 @ 865C (1589F)

### **Evaporation Rate (BuAc=1):**

No information found.

---

## 10. Stability and Reactivity

### **Stability:**

Stable under ordinary conditions of use and storage. Hygroscopic.

**Hazardous Decomposition Products:**

When heated to above 801C (1474F) it emits toxic fumes of chloride and sodium oxide.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Lithium, bromine trifluoride.

**Conditions to Avoid:**

Incompatibles.

---

## 11. Toxicological Information

Oral rat LD50: 3000 mg/kg.

Inhalation rat LC50: > 42 gm/m3 /1H.

Skin rabbit LD50: > 10 gm/kg. Investigated as a mutagen, reproductive effector.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Sodium Chloride (7647-14-5)	No	No	None

---

## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

---

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

---

## 14. Transport Information

Not regulated.

---

## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Sodium Chloride (7647-14-5)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	--Canada--			
	Korea	DSL	NDSL	Phil.

Sodium Chloride (7647-14-5)	Yes	Yes	No	Yes
-----\Federal, State & International Regulations - Part 1\-----				
	-SARA 302-		-SARA 313-	
Ingredient	RQ	TPQ	List	Chemical Catg.
-----				
Sodium Chloride (7647-14-5)	No	No	No	No
-----\Federal, State & International Regulations - Part 2\-----				
		-RCRA-	-TSCA-	
Ingredient	CERCLA	261.33	8 (d)	
-----				
Sodium Chloride (7647-14-5)	No	No	No	

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
SARA 311/312: Acute: Yes      Chronic: No      Fire: No      Pressure: No  
Reactivity: No      (Pure / Solid)

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 1 Flammability: 0 Reactivity: 0

**Label Hazard Warning:**

WARNING! CAUSES EYE IRRITATION.

**Label Precautions:**

Avoid contact with eyes.

Wash thoroughly after handling.

**Label First Aid:**

In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Information Found.

**Disclaimer:**

\*\*\*\*\*

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\*\*\*\*\*

**Prepared by:** Environmental Health & Safety

Phone Number: (314) 654-1600 (U.S.A.)

# Franklin International

## Material Safety Data Sheet

Titebond II Extend

### 1. Product and company identification

**CAS #** : mixture  
**Address** : Franklin International  
2020 Bruck Street  
Columbus OH 43207  
**Contact person** : Franklin Technical Services  
**Telephone** : (800) 877-4583  
**In case of emergency** : Franklin Security  
(614) 445-1300  
**Reference number** : 4295  
**Product code** : 4136  
**Date of revision** : 6/12/2014.  
**Print date** : 6/12/2014.  
**Chemtrec (24 Hour)** : (800) 424 - 9300  
**Chemtrec International** : (703) 527 - 3887  
**Chemical family** : Adhesive.  
**Product use** : PVA/ADHESIVE  
CROSSLINK POLYVINYL ACETATE

### 2. Hazards identification

#### Emergency overview

**Physical state** : Liquid.  
**Color** : White to yellowish. [Light]  
**Odor** : Characteristic. [Slight]  
**Signal word** : CAUTION!  
**Hazard statements** : MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.  
**Precautionary measures** : Avoid breathing vapor or mist. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Wash thoroughly after handling.  
**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

**Inhalation** : Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation. Moderately irritating to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
**Ingestion** : No known significant effects or critical hazards.  
**Skin** : Slightly irritating to the skin.  
**Eyes** : Moderately irritating to eyes.

#### Potential chronic health effects

**Chronic effects** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.

## 2. Hazards identification

- 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.  
**Target organs** : May cause damage to the following organs: skin, eyes.  
 Contains material which may cause damage to the following organs: upper respiratory tract, eye, lens or cornea.

### Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing  
**Ingestion** : No specific data.  
**Skin** : Adverse symptoms may include the following:  
 irritation  
 redness  
**Eyes** : Adverse symptoms may include the following:  
 irritation  
 watering  
 redness

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (Section 11)

## 3. Composition/information on ingredients

### United States

Name	CAS number	%
urea	57-13-6	1 - 5

### Canada

Name	CAS number	%
urea	57-13-6	1 - 5

### Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
urea	57-13-6	UN3077	1 - 5	-	2	0	0	-

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

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- 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.
- 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.

## 5. Fire-fighting measures

- Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : 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** : 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 (see Section 8).
- 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).
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor. Absorb with an inert material.
- 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. 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

- Handling** : Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.
- Storage** : Store between the following temperatures: 10 to 32°C (50 to 89.6°F). 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

### United States

Ingredient	Exposure limits
urea	AIHA WEEL (United States, 10/2011). TWA: 10 mg/m <sup>3</sup> 8 hours.

### Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	Notations
urea	US AIHA 10/2011	-	10	-	-	-	-	-	-	-	

### Mexico

#### Occupational exposure limits

No exposure limit value known.

#### 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.
- Engineering measures** : Use only with adequate ventilation. 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 any recommended or statutory limits.
- 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.
- Personal protection**
- Respiratory** : 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.

## 8. Exposure controls/personal protection

- Hands** : 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.
- Eyes** : 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 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** : 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.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

## 9. Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Closed cup: Not applicable.
- Color** : White to yellowish. [Light]
- Odor** : Characteristic. [Slight]
- pH** : 3
- Boiling/condensation point** : 98.889°C (210°F)
- Relative density** : 1.11
- Volatility** : 51% (w/w)
- VOC (less water, less exempt solvents)** : 3.75 g/l
- Solubility** : Partially soluble in the following materials: cold water and hot water.

## 10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Hazardous decomposition products: carbon oxides. Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11. Toxicological information

### United States

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
urea	LD50 Oral	Rat	8471 mg/kg	-

#### Chronic toxicity

No known significant effects or critical hazards.

#### Irritation/Corrosion

## 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
urea	Skin - Mild irritant	Human	-	72 hours 22 milligrams	-
	Skin - Moderate irritant	Human	-	Intermittent 24 hours 20 Percent	-

### Conclusion/Summary

- Skin** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Eyes** : Moderately irritating to eyes.
- Respiratory** : Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

### Sensitizer

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.

### Reproductive toxicity

No known significant effects or critical hazards.

### Canada

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
urea	LD50 Oral	Rat	8471 mg/kg	-

#### Chronic toxicity

No known significant effects or critical hazards.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
urea	Skin - Mild irritant	Human	-	72 hours 22 milligrams	-
	Skin - Moderate irritant	Human	-	Intermittent 24 hours 20 Percent	-

### Conclusion/Summary

- Skin** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Eyes** : Moderately irritating to eyes.
- Respiratory** : Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

### Sensitizer

No known significant effects or critical hazards.

### Carcinogenicity

No known significant effects or critical hazards.

### Mutagenicity

No known significant effects or critical hazards.

### Teratogenicity

## 11. Toxicological information

No known significant effects or critical hazards.

### Reproductive toxicity

No known significant effects or critical hazards.

### Mexico

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
urea	LD50 Oral	Rat	8471 mg/kg	-

No known significant effects or critical hazards.

### Chronic toxicity

No known significant effects or critical hazards.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
urea	Skin - Mild irritant	Human	-	72 hours 22 milligrams	-
	Skin - Moderate irritant	Human	-	Intermittent 24 hours 20 Percent	-

### Conclusion/Summary

#### **Skin**

: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

#### **Eyes**

: Moderately irritating to eyes.

#### **Respiratory**

: Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

### Sensitizer

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.

### Reproductive toxicity

No known significant effects or critical hazards.

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### United States

#### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
urea	Acute EC50 3910000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
	Acute LC50 22.5 ppt Fresh water	Fish - Oreochromis mossambicus - Young	96 hours
	Chronic NOEC 2 g/L Fresh water	Fish - Heteropneustes fossilis	30 days

### Persistence/degradability

No known significant effects or critical hazards.

## 12. Ecological information

### Canada

#### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
urea	Acute EC50 3910000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
	Acute LC50 22.5 ppt Fresh water	Fish - Oreochromis mossambicus - Young	96 hours
	Chronic NOEC 2 g/L Fresh water	Fish - Heteropneustes fossilis	30 days

#### Persistence/degradability

No known significant effects or critical hazards.

### Mexico

#### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
urea	Acute EC50 3910000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
	Acute LC50 22.5 ppt Fresh water	Fish - Oreochromis mossambicus - Young	96 hours
	Chronic NOEC 2 g/L Fresh water	Fish - Heteropneustes fossilis	30 days

No known significant effects or critical hazards.

#### Persistence/degradability

No known significant effects or critical hazards.

## 13. Disposal considerations

### Waste disposal

: 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.

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.

## 14. Transport information

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	Not regulated.	-	-	-		-
<b>TDG Classification</b>	Not regulated.	-	-	-		-
<b>Mexico Classification</b>	Not regulated.	-	-	-		-
<b>ADR/RID Class</b>	Not regulated.	-	-	-		-
<b>IMDG Class</b>	Not regulated.	-	-	-		-
<b>IATA-DGR Class</b>	Not regulated.	-	-	-		-

PG\* : Packing group

## 15. Regulatory information

### United States

HCS Classification : Irritating material

U.S. Federal regulations : TSCA 4(a) final test rules: sodium hydroxymethanesulphinate

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304: No products were found.

SARA 311/312 Hazards identification: Immediate (acute) health hazard

Clean Air Act Section 112 : Not listed  
(b) Hazardous Air Pollutants (HAPs)Clean Air Act Section 602 : Not listed  
Class I SubstancesClean Air Act Section 602 : Not listed  
Class II SubstancesDEA List I Chemicals : Not listed  
(Precursor Chemicals)DEA List II Chemicals : Not listed  
(Essential Chemicals)

### State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

### Canada

WHMIS (Canada) : Not controlled under WHMIS (Canada).

## 15. Regulatory information

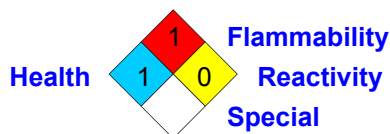
### Canadian lists

- Canadian NPRI** : None of the components are listed.  
**CEPA Toxic substances** : None of the components are listed.  
**Canada inventory** : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### Mexico

**Classification** :



### International regulations

- International lists** :
- Australia inventory (AICS)**: Not determined.
  - China inventory (IECSC)**: Not determined.
  - Japan inventory**: Not determined.
  - Korea inventory**: Not determined.
  - Malaysia Inventory (EHS Register)**: Not determined.
  - New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
  - Philippines inventory (PICCS)**: Not determined.
  - Taiwan inventory (CSNN)**: Not determined.

**Chemical Weapons** : Not listed

**Convention List Schedule I Chemicals**

**Chemical Weapons** : Not listed

**Convention List Schedule II Chemicals**

**Chemical Weapons** : Not listed

**Convention List Schedule III Chemicals**

## 16. Other information

**Label requirements** : MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

**Hazardous Material** :

**Information System (U.S.A.)**

Health	1
Flammability	1
Physical hazards	0

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.)** :

## 16. Other information



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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.

**Date of printing** : 6/12/2014.

**Date of issue** : 6/12/2014.

**Date of previous issue** : 3/1/2012.

**Version** : 2.1

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.



# Franklin International

## Material Safety Data Sheet

### Titebond III Ultimate Wood Glue

#### 1. Product and company identification

<b>CAS #</b>	: mixture
<b>Synonym</b>	: None known.
<b>Address</b>	: Franklin International 2020 Bruck Street Columbus OH 43207
<b>Contact person</b>	: Franklin Technical Services
<b>Telephone</b>	: (800) 877-4583
<b><u>In case of emergency</u></b>	: Franklin Security (614) 445-1300
<b>Reference number</b>	: 6192
<b>Product code</b>	: 1416
<b>Date of revision</b>	: 5/23/2014.
<b>Print date</b>	: 5/23/2014.
<b>Chemtrec (24 Hour)</b>	: (800) 424 - 9300
<b>Chemtrec International</b>	: (703) 527 - 3887
<b>Chemical family</b>	: Adhesive.
<b>Product use</b>	: Waterproof wood glue
<b>Product type</b>	: Crosslink Polyvinyl Acetate

#### 2. Hazards identification

##### Emergency overview

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Brown. [Light]
<b>Odor</b>	: Characteristic. [Slight]
<b>Hazard statements</b>	: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

##### Potential acute health effects

<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: No known significant effects or critical hazards.
<b>Eyes</b>	: No known significant effects or critical hazards.

##### Potential chronic health effects

<b>Chronic effects</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.

## 2. Hazards identification

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Target organs** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

**Inhalation** : No specific data.

**Ingestion** : No specific data.

**Skin** : No specific data.

**Eyes** : No specific data.

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (Section 11)

## 3. Composition/information on ingredients

There are no 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

**Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

**Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

**Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.

**Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

**Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.

### Extinguishing media

**Suitable** : Use an extinguishing agent suitable for the surrounding fire.

**Not suitable** : None known.

**Special exposure hazards** : 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** : 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. Put on appropriate personal protective equipment (see Section 8).
- 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).
- Small spill** : Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor. Absorb with an inert material.
- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). 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.
- Storage** : Store between the following temperatures: -15.309 to 23.889°C (4.4 to 75°F). 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

### Canada

#### Occupational exposure limits

No exposure limit value known.

### Mexico

#### Occupational exposure limits

No exposure limit value known.

#### **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.
- Engineering measures** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- 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.

#### Personal protection

## 8. Exposure controls/personal protection

- Respiratory** : 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.
- Hands** : 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.
- Eyes** : 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 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** : 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.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

## 9. Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Closed cup: >93.333°C (>200°F) [Setaflash.]
- Color** : Brown. [Light]
- Odor** : Characteristic. [Slight]
- pH** : 2.5 to 3.5
- Boiling/condensation point** : 98.889°C (210°F)
- Relative density** : 1.11
- Volatility** : 48% (w/w)
- Evaporation rate** : <1 (butyl acetate = 1)
- VOC (less water, less exempt solvents)** : 5.6 g/l
- Solubility** : Soluble in the following materials: cold water and hot water.
- Physical/chemical properties comments** : Calculated VOC = 5.6 g/L

## 10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11. Toxicological information

### United States

#### Acute toxicity

#### Chronic toxicity

No known significant effects or critical hazards.

#### Irritation/Corrosion

## 11. Toxicological information

No known significant effects or critical hazards.

### Sensitizer

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.

### Reproductive toxicity

No known significant effects or critical hazards.

### Canada

#### Acute toxicity

#### Chronic toxicity

No known significant effects or critical hazards.

#### Irritation/Corrosion

No known significant effects or critical hazards.

#### Sensitizer

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.

#### Reproductive toxicity

No known significant effects or critical hazards.

### Mexico

#### Acute toxicity

#### Chronic toxicity

No known significant effects or critical hazards.

#### Irritation/Corrosion

No known significant effects or critical hazards.

#### Sensitizer

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.

#### Reproductive toxicity

No known significant effects or critical hazards.

## 12. Ecological information

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### United States

#### Aquatic ecotoxicity

#### Persistence/degradability

No known significant effects or critical hazards.

### Canada

#### Aquatic ecotoxicity

#### Persistence/degradability

No known significant effects or critical hazards.

### Mexico

#### Aquatic ecotoxicity

#### Persistence/degradability

No known significant effects or critical hazards.

**Other adverse effects** : No known significant effects or critical hazards.

## 13. Disposal considerations

**Waste disposal** : 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.

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.

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	Not regulated.	-	-	-		-
<b>TDG Classification</b>	Not regulated.	-	-	-		-
<b>Mexico Classification</b>	Not regulated.	-	-	-		-
<b>ADR/RID Class</b>	Not regulated.	-	-	-		-
<b>IMDG Class</b>	Not regulated.	-	-	-		-
<b>IATA-DGR Class</b>	Not regulated.	-	-	-		-

PG\* : Packing group

## 15. Regulatory information

### United States

**HCS Classification** : Not regulated.

**U.S. Federal regulations** : TSCA 4(a) final test rules: Not applicable

TSCA 8(a) PAIR: Not applicable

**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined

**United States inventory (TSCA 8b):** All components are listed or exempted.

**SARA 302/304:** No products were found.

**SARA 311/312 Hazards identification:** Not regulated.

**Clean Air Act Section 112** : Not listed

**(b) Hazardous Air  
Pollutants (HAPs)**

**Clean Air Act Section 602** : Not listed

**Class I Substances**

**Clean Air Act Section 602** : Not listed

**Class II Substances**

**DEA List I Chemicals** : Not listed

**(Precursor Chemicals)**

**DEA List II Chemicals** : Not listed

**(Essential Chemicals)**

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

### Canada

**WHMIS (Canada)** : Not controlled under WHMIS (Canada).

### Canadian lists

**Canadian NPRI** : None of the components are listed.

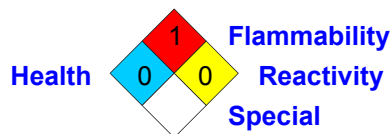
**CEPA Toxic substances** : None of the components are listed.

**Canada inventory** : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### Mexico

**Classification** :



### International regulations

## 15. Regulatory information

<b>International lists</b>	: Australia inventory (AICS): Not determined. China inventory (IECSC): Not determined. Japan inventory: Not determined. Korea inventory: Not determined. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): Not determined. Philippines inventory (PICCS): Not determined. Taiwan inventory (CSNN): Not determined.
<b>Chemical Weapons Convention List Schedule I Chemicals</b>	: Not listed
<b>Chemical Weapons Convention List Schedule II Chemicals</b>	: Not listed
<b>Chemical Weapons Convention List Schedule III Chemicals</b>	: Not listed

## 16. Other information

**Label requirements** : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

**Hazardous Material  
Information System (U.S.A.)** :

Health	0
Flammability	1
Physical hazards	0

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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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.

**Date of printing** : 5/23/2014.

**Date of issue** : 5/23/2014.



## 16. Other information

**Date of previous issue** : 5/20/2014.

**Version** : 2

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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# MATERIAL SAFETY DATA SHEET

USG® No. 1 Moulding Plaster

MSDS #52-100-169

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## SECTION 1 CHEMICAL PRODUCT AND IDENTIFICATION

United States Gypsum Company  
550 West Adams Street  
Chicago, Illinois 60661-3637  
A Subsidiary of USG Corporation

Product Safety: 1 (800) 507-8899  
[www.usg.com](http://www.usg.com)  
Version Date: January 1, 2014  
Version: 3

**PRODUCT(S)** USG® No. 1 Moulding Plaster

**CHEMICAL FAMILY /  
GENERAL CATEGORY** Industrial Products, Plaster

**SYNONYMS** Formulated product containing Plaster of Paris (Calcium Sulfate Hemihydrate)  
(CaSO<sub>4</sub>•½H<sub>2</sub>O)

## SECTION 2 HAZARD IDENTIFICATION

### EMERGENCY OVERVIEW: ⚠WARNING!

This product is not expected to produce any unusual hazards during normal use. Exposure to high dust levels may irritate the skin, eyes, nose, throat, or upper respiratory tract.

### POTENTIAL HEALTH EFFECTS (See Section 11 for more information)

#### ACUTE :

Inhalation	Exposure to dust generated during the handling or use of the product may cause temporary irritation to eyes, skin, nose, throat, and upper respiratory tract. Persons subjected to large amounts of this dust will be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation. Labored breathing may occur after excessive inhalation. If respiratory symptoms persist, consult physician.
------------	--

Eyes	Dust can cause temporary mechanical irritation of eyes. If burning, redness, itching, pain or other symptoms persist or develop, consult physician.
------	---

Skin	None known.
------	-------------

Ingestion	None known.
-----------	-------------

#### CHRONIC:

Inhalation	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. The development of silicosis may increase the risks of additional health effects. The risk of developing silicosis is dependent upon the exposure intensity and duration.
------------	--

Eyes	None known.
------	-------------

Skin	None known.
------	-------------

Ingestion	None known.
-----------	-------------

**TARGET ORGANS:** Eyes, skin and respiratory system.

**PRIMARY ROUTES OF ENTRY:** Inhalation, eyes and skin contact.



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**CARCINOGENICITY CLASSIFICATION OF INGREDIENT(S)** All substances listed are associated with the nature of the raw materials used in the manufacture of this product and are not independent components of the product formulation. All substances, if present, are at levels well below regulatory limits. See Section 11: Toxicology Information for detailed information.

MATERIAL	IARC	NTP	ACGIH	CAL- 65
----------	------	-----	-------	---------

Crystalline silica	1	1	A2	Listed
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IARC - International Agency for Research on Cancer: 1- Carcinogenic to humans; 2A – Probably carcinogenic to humans; 2B – Possibly carcinogenic to humans; 3 - Not classifiable as a carcinogen; 4 – Probably not a carcinogen

NTP – National Toxicology Program (Health and Human Services Dept., Public Health Service, NIH/NIEHS): 1- Known to be carcinogen; 2- Anticipated to be carcinogens

ACGIH – American Conference of Governmental Industrial Hygienists: A1 – Confirmed human carcinogen; A2 – Suspected human carcinogen; A3 – Animal carcinogen; A4 - Not classifiable as a carcinogen; A5 – Not suspected as a human carcinogen

CAL-65 – California Proposition 65 “Chemicals known to the State of California to Cause Cancer”

Respirable crystalline silica: IARC: Group 1 carcinogen, NTP: Known human carcinogen. The weight percent of crystalline silica given represents total quartz and not the respirable fraction. The weight percent of respirable silica has not been measured in this product.

**POTENTIAL ENVIRONMENTAL EFFECTS:** Toxicity studies performed with fish, aquatic invertebrates and aquatic plants showed no toxic effect. (See Section 12 for more information.)

## SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

MATERIAL	WT%	CAS #
----------	-----	-------

Plaster of Paris ( $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$ )	>99	26499-65-0
Crystalline Silica	<1	14808-60-7^

All ingredients of this product are included in the U.S. Environmental Protection Agency's Toxic Substances Control Act Chemical Substance Inventory and the Canadian Domestic Substances List (DSL).

^The weight percent for silica represents total quartz and not the respirable fraction.

## SECTION 4 FIRST AID MEASURES

### FIRST AID PROCEDURES

Inhalation	Remove to fresh air. Leave the area of exposure and remain away until coughing and other symptoms subside. Other measures are usually not necessary, however if conditions warrant, contact physician.
Eyes	In case of contact, do not rub or scratch your eyes. To prevent mechanical irritation, flush thoroughly with water for 15 minutes. If irritation persists, consult physician.
Skin	To prevent the drying effect of plaster of paris, wash with mild soap and water. A commercially available hand lotion may be used to treat dry skin areas. If skin has become cracked, take appropriate action to prevent infection and promote healing. If irritation persists, consult physician.
Ingestion	Plaster of paris hardens and, if ingested, may result in obstruction of the gut, especially the pyloric region. Drinking gelatin solutions or large volumes of water may delay setting.



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**MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED:** Pre-existing upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma. Pre-existing skin diseases such as, but not limited to, rashes and dermatitis.

**NOTES TO PHYSICIAN:** Treatment should be directed at the control of symptoms and the clinical condition.

## SECTION 5 FIRE FIGHTING MEASURES

General Fire Hazards	Not expected to burn.		
Extinguishing Media	Water or use extinguishing media appropriate for surrounding fire.		
Special Fire Fighting Procedures	Wear appropriate personal protective equipment. See section 8.		
Unusual Fire/ Explosion Hazards	None known		
Hazardous Combustion Products	Above 1450° C - decomposes to calcium oxide (CaO) and sulfur dioxide (SO <sub>2</sub> ).		
Flash Point	Not Determined	Auto Ignition	Not Applicable
Method Used	Not Applicable	Flammability Classification	Not Applicable
Upper Flammable Limit (UFL)	Not Determined	Rate of Burning	Not Applicable
Lower Flammable Limit (LFL)	Not Determined		

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**CONTAINMENT:** No special precautions. Wear appropriate personal protective equipment. See section 8.

**CLEAN-UP:** Use normal clean up procedures. No special precautions.

**DISPOSAL:** Follow all local, state, provincial and federal regulations. Never discharge large releases directly into sewers or surface waters.

## SECTION 7 HANDLING AND STORAGE

**HANDLING:** Avoid dust contact with eyes and skin. Wear the appropriate eye and skin protection against dust (See Section 8). Minimize dust generation and accumulation. Avoid breathing dust. Wear the appropriate respiratory protection against dust in poorly ventilated areas and if TLV is exceeded (see Sections 2 and 8). Use good safety and industrial hygiene practices.

**STORAGE:** Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities (see Section 10). As a dry powder, dew point conditions or other conditions causing presence of liquid will harden plaster of paris during storage.



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## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	WT%	TLV (mg/m <sup>3</sup> )	PEL (mg/m <sup>3</sup> )
Plaster of Paris (CaSO <sub>4</sub> •½H <sub>2</sub> O)	>99	10	15 (T) / 5 (R)
Crystalline Silica	<1	0.025 (R)	0.1 (R)

(T)—Total; (R)—Respirable; (NE)—Not Established; (C)—Ceiling; (STEL)—Short-term exposure limit

(F)—Fume; (Du)—Dust; (M)—Mist

ppm—part per million; f/cc—fiber per cubic centimeter; mppcf—million particles per cubic foot

**ENGINEERING CONTROLS:** Provide ventilation sufficient to control airborne dust levels. If user operations generate airborne dust, use ventilation to keep dust concentrations below permissible exposure limits. Where general ventilation is inadequate, use process enclosures, local exhaust ventilation, or other engineering controls to control dust levels below permissible exposure limits.

**RESPIRATORY PROTECTION:** Wear a NIOSH/MSHA-approved respirator equipped with particulate cartridges when dusty in poorly ventilated areas, and if TLV is exceeded. A respiratory program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. If engineering controls are not possible, wear a properly fitted NIOSH/MSHA-approved particulate respirator.

### OTHER PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face	Wear eye protection, safety glasses or goggles, to avoid possible eye contact.
Skin	Wear gloves and protective clothing to prevent repeated or prolonged skin contact.
General	Selection of Personal Protective Equipment will depend on environmental working conditions and operations.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White to off-white	Vapor Density (Air = 1)	Not Applicable
Odor	Low to no odor	Specific Gravity (H <sub>2</sub> O = 1)	~2.96 (Plaster of Paris)
Odor Threshold	Not Determined	Solubility in water (g/100g)	0.15 - 0.40 (Plaster of Paris)
Physical State	Solid/ Powder	Partition Coefficient	Not Determined
pH @ 25 ° C	~7	Auto-ignition Temp	Not Determined
Melting Point	Not Applicable	Decomposition Temp	2642°F/1450°C
Freezing Point	Not Applicable	Viscosity	Not Applicable
Boiling Point	Not Applicable	Particle Size	Varies
Flash Point	Not Determined	Bulk Density	55-70 lb/ft <sup>3</sup> (dry) / 881-1,121 kg/m <sup>3</sup> (dry)
Evaporation Rate (BuAc = 1)	Not Applicable	Molecular Weight	~ 145 g/mole (Plaster of Paris)



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Upper Flammable Limit (UFL)	Not Determined	VOC Content	Zero g/L
Lower Flammable Limit (LFL)	Not Determined	Percent Volatile	Zero
Vapor Pressure (mm Hg)	Not Applicable		

## SECTION 10 CHEMICAL STABILITY AND REACTIVITY

STABILITY	Stable.
CONDITIONS TO AVOID	Contact with acids, water, high humidity.
INCOMPATIBILITY	Acids. Exposure to water and acids must be supervised because the reactions are vigorous and produce large amounts of heat.
HAZARDOUS POLYMERIZATION	None known.
HAZARDOUS DECOMPOSITION	Above 1450° C - calcium oxide (CaO) and sulfur dioxide (SO <sub>2</sub> ).

## SECTION 11 TOXICOLOGICAL INFORMATION

**ACUTE EFFECTS:** The acute oral toxicity study [OECD TG 420] of calcium sulfate dihydrate showed that this chemical did not cause any changes even at 2,000 mg/kg b.w. Therefore, the oral LD50 value was more than 2,000-mg/kg b.w. for female rats. Gypsum paste applied experimentally to the eyes of rabbits was not an irritant. Gypsum dust particulate has shown an irritant action on mucous membranes of the respiratory tract and eyes. The sulfate ion has caused gastro-intestinal disturbance in humans following large oral doses. Limited studies involving the repeated inhalation of an (unspecified) calcium sulfate failed to identify any particular target organs in monkeys, rats and hamsters. No evidence of mutagenicity was found in Ames bacterial tests.

### CHRONIC EFFECTS / CARCINOGENICITY:

Plaster of Paris: Testing of dust from USG plaster of paris has not detected respirable crystalline silica.

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. The weight percent of respirable crystalline silica may not have been measured in this product. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer. The development of silicosis may increase the risks of additional health effects. Smoking in combination with silica exposures increases the risk of cancer. The risk of developing silicosis is dependent upon the exposure intensity and duration.

In June, 1997, IARC classified crystalline silica (quartz and cristobalite) as a human carcinogen. In making the overall evaluation, the IARC Working Group noted that carcinogenicity in humans 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 states that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).

## SECTION 12 ECOLOGICAL INFORMATION



# MATERIAL SAFETY DATA SHEET

USG® No. 1 Moulding Plaster

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**ENVIRONMENTAL TOXICITY:** This product has no known adverse effect on ecology. Toxicity studies performed with fish, aquatic invertebrates and aquatic plants showed no toxic effect.

<b>Ecotoxicity value</b>	Not determined.
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## SECTION 13 DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** Dispose of material in accordance with federal, state, and local regulations. Never discharge directly into sewers or surface waters. Consult with environmental regulatory agencies for guidance on acceptable disposal practices. Slurry may plug drains. Trace amounts of residue can be flushed to a drain, using plenty of water.

## SECTION 14 TRANSPORT INFORMATION

**U.S. DOT INFORMATION:** Not a hazardous material per DOT shipping requirements. Not classified or regulated.

<b>Shipping Name</b>	Same as product name.
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<b>Hazard Class</b>	Not classified.
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<b>UN/NA #</b>	None. Not classified.
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<b>Packing Group</b>	None.
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<b>Label (s) Required</b>	Not applicable.
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<b>GGVSec/MDG-Code</b>	Not classified.
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<b>ICAO/IATA-DGR</b>	Not applicable.
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<b>RID/ADR</b>	None.
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<b>ADNR</b>	None.
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## SECTION 15 REGULATORY INFORMATION

### UNITED STATES REGULATIONS

All ingredients of this product are included in the U.S. Environmental Protection Agency's Toxic Substances Control Act Chemical Substance Inventory.

MATERIAL	WT%	3 0 2	3 0 4	3 1 3	CERCLA	CAA Sec. 112	RCRA Code
Plaster of Paris (CaSO <sub>4</sub> •½H <sub>2</sub> O)	>99	NL	NL	NL	NL	NL	NL
Crystalline Silica	<1	NL	NL	NL	NL	NL	NL

Key: NL = Not Listed

SARA Title III Section 302 (EPCRA) Extremely Hazardous Substances: Threshold Planning Quantity (TPQ)



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SARA Title III Section 304 (EPCRA) Extremely Hazardous Substances: Reportable Quantity (RQ)

SARA Title III Section 313 (EPCRA) Toxic Chemicals: X= Subject to reporting under section 313

CERCLA Hazardous Substances: Reportable Quantity (RQ)

CAA Section 112 (r) Regulated Chemicals for Accidental Release Prevention: Threshold Quantities(TQ)

RCRA Hazardous Waste: RCRA hazardous waste code

## CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of Controlled Product regulations and the MSDS contains all the information required by the Controlled Products Regulations. All ingredients of this product are included in the Canadian Domestic Substances List (DSL).

### MATERIAL

### WT%

### IDL Item #

### WHMIS

### Classification

Plaster of Paris ( $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$ )

>99

Not Listed

Not Listed

Crystalline Silica

<1

1406

D2A

IDL Item#: Canadian Hazardous Products Act – Ingredient Disclosure List Item #

WHMIS Classification: Workplace Hazardous Material Information System

## Risk and Safety Phrases defined by European Union Directive 67/548/EEC (Annex III and IV)

R-Phrase(s): R36/37/38

S-Phrase(s): S51 S38 S39

## SECTION 16 OTHER INFORMATION

### Label Information

#### Δ WARNING!

When mixed with water, this material hardens and becomes very hot sometimes quickly. DO NOT attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb. Dust can cause irritation to eyes, skin and respiratory tract. Wear eye, skin and respiratory protection as necessary per working conditions. If eye contact occurs flush with water for 15 minutes. Do not ingest. If ingested, call physician. Product safety information: 800-507-8899 or usg. com. Customer Service: 800 USG-4-YOU (800 874-4968). KEEP OUT OF REACH OF CHILDREN.

## INFORMATION FOR HANDLING AND IDENTIFICATION OF CHEMICAL HAZARDS

### NFPA Ratings:

Health: 1

Fire: 0

Reactivity: 0



### HMIS Ratings:

Health: 1

Fire: 0

Reactivity: 1

HEALTH	*	1
FLAMMABILITY		0
PHYSICAL HAZARD		1
PERSONAL PROTECTION		E

0 = Minimal Hazard

1 = Slight Hazard

2 = Moderate Hazard

3 = Serious Hazard

4 = Severe Hazard

E – Safety glasses, gloves and dust respirator; \* - Contains silica

### Key/Legend





# MATERIAL SAFETY DATA SHEET

## USG® No. 1 Moulding Plaster

MSDS #52-100-169

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ANSI	American National Standards Institute
ACGIH	American Conference of Governmental Industrial Hygienists
CAA	Clean Air Act
CAS	Chemical Abstracts Service (Registry Number)
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR	Code of Federal Regulations
DOT	United States Department of Transportation
DSL	Canadian Domestic Substances List
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning & Community Right-to-know Act
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
MSHA	Mine Safety and Health Administration
NDSL	Canadian Non-Domestic Substances List
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Health and Safety Administration
PEL	Permissible Exposure Limit
PPE	Personal Protection Equipment
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act of 1986
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
UN/NA#	United Nations/North America number
WHMIS	Workplace Hazardous Material Information System

Prepared by:  
Product Safety  
USG Corporation  
550 West Adams Street  
Chicago, IL 60661-3637

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. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his/her own particular use.

**END**

# Material Safety Data Sheet

## Victory Brown Wax

Date of Preparation: 8/23/06

Revision:

### Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Victory Brown Wax

**Manufacturer:** BARECO PRODUCTS 140 East Main Street, Suite 400, Rock Hill, SC 29730  
Phone (814) 677-1333, Emergency Phone Number 800-424-9300.

**Distributed By:** Freeman Manufacturing and Supply Company, 1101 Moore Road, Avon, OH 44011,  
Phone (440)934-1902, FAX (440)934-7200, Hours of Operation 8-5, Emergency Phone Number 800-424-9300

<b>HMIS</b>
<b>H</b> 1
<b>F</b> 1
<b>R</b> 0
<b>PPE</b> <sup>†</sup>
<sup>†</sup> Sec. 8

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

WARNING! Hot wax may cause burns to eyes and skin. Use appropriate protective equipment when handling hot wax.

### Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol
Hydro-treated Microcrystalline Wax	64742-60-5	50%-99%
Microcrystalline Paraffin and Hydro	63231-60-7	1% - 50%

### Section 3 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance and Odor:** Brown to black solid, slight odor.

**Vapor Pressure:** <1 mm HG @ 68F

**Vapor Density (Air=1):** No data

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 0.93

**Water Solubility:** Insoluble

**Boiling Point:** No data available

**Melting Point:** 170F

**% Volatile:** 0

**Evaporation Rate: (Butyl Acetate = 1):** No data

**pH:** Not determined

### Section 4 - Fire-Fighting Measures

**Flash Point:** >347F

**Flash Point Method:** COC

**LEL:** No data

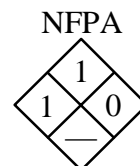
**UEL:** No data

**Extinguishing Media:** CO<sub>2</sub>, dry chemical, or foam.

**Unusual Fire or Explosion Hazards:** Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion.

**Fire-Fighting Instructions:** Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.



## Victory Brown Wax

### Section 5 - Stability and Reactivity

**Stability (Thermal, Light, etc.):** Stable

**Conditions to Avoid:** None

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

**Chemical Incompatibilities:** Strong oxidizing agents.

**Conditions to Avoid:** None

**Hazardous Decomposition Products:** CO<sub>2</sub>, (CO with incomplete combustion)

### Section 6 - Health Hazard Information

#### Potential Health Effects

**Eye Contact:** This product is minimally irritating to the eyes upon direct contact based on testing of similar products and/or components.

**Skin Contact:** This product is minimally irritating to the skin upon direct contact based on testing of similar products and/or components.

**Inhalation:** Avoid inhalation of fumes. Caution should be taken to prevent generation of fumes. Paraffin wax fumes, if generated are considered hazardous according to the OSHA Hazard Communication Standard. This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or melting of this product. The threshold limit value (TLV) for this product as paraffin wax fumes is 2 mg/m<sup>3</sup>. Exposure to vapors generated under unusual conditions may be mildly irritating to the nose and throat. See Health Data below.

**Ingestion:** Do not ingest. This product has laxative properties and may result in abdominal cramps and diarrhea.

**Health Data:** Paraffin waxes are mixtures of high molecular weight (C<sub>20</sub>-C<sub>40</sub>) solid hydrocarbons. They are comprised mostly of N-Alkanes. But some Iso and Cycloalkanes are also present. Physiologically paraffin waxes are inert and are considered nontoxic. Working with molten paraffin is reported to be uncomfortable and nauseating. Use of paraffin spray has been reported to be objectionable because of its physical properties and not due to its toxicity. Based on this data the ACGIH threshold limit value (TLV) for paraffin wax fumes is recommended to prevent irritation of the respiratory tract and other unpleasant effects. Petroleum waxes studies were not found to be carcinogenic in mouse skin painting or in rat lifetime feeding studies. This product is not carcinogenic according to the OSHA Hazard Communication Standard.

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#### Emergency and First Aid Procedures

**Eye Contact:** Immediately flush eyes with large amounts of water and continue flushing until irritation subsides. If material is hot, treat for thermal burns and take victim to hospital immediately.

**Skin Contact:** Remove contaminated clothing. If material is hot, submerge injured area in cold water. If victim is severely burned, remove to a hospital immediately.

**Inhalation:** This material has a low vapor pressure and is not expected to present an inhalation exposure at ambient conditions. If fumes are generated when the material is heated or handled, remove victim from exposure.

**Ingestion:** Do not induce vomiting.

### Section 7 - Spill, Leak, and Disposal Procedures

#### Spill /Leak Procedures:

Consult Health Effect Information in Section 6, Personal Health Protection Information in Section 8, Fire Protection Information in Section 4, and Reactivity Data in Section 5. Notify appropriate authorities of spill. Contain spill immediately. Do not allow spill to enter sewers or watercourses. Remove all sources of ignition. Absorb with appropriate inert material such as sand, clay, etc. Large spills may be picked up using vacuum pumps, shovels, buckets, or other means and placed in drums or other suitable containers.

**Waste Disposal Method:** All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded, may be a regulated waste. Refer to state and local regulations. CAUTION! If regulated solvents are used to clean up spilled material, the resulting waste mixture may be regulated. Department of Transportation (DOT) regulations may apply for transporting this material when spilled. Waste material may be landfilled or incinerated at an approved facility. Material should be recycled if possible.

#### Regulatory Information:

**SARA Title III Section 313:** This product is not known to contain any SARA Title III, Section 313 reportable chemicals at or greater than 1.0% (0.1% for carcinogen).

**TSCA Inventory Status:** This substance is listed on the Toxic Substance Control Act (TSCA) Inventory.

**California Proposition 65 (The Safe Drinking Water and Toxics Enforcement Act):** This material does not contain any component(s) known to the State of California to be carcinogenic or teratogenic.

**Section 8 - Exposure Controls / Personal Protection****Engineering Controls:**

**Ventilation:** If vapor or mist is generated when the material is heated or handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specified exposure or flammable limits.

**Eye Protection:** Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.

**Skin Protection:** Skin protection is not required under conditions of normal use. If handling hot material, use insulated protective clothing (Boots, gloves, aprons, etc.).

**Respiratory Protection:** Respiratory protection is not required under conditions of normal use. If fumes are generated when the material is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified. Do not use compressed oxygen in hydrocarbon atmospheres.

**Other:** Consumption of food and beverage should be avoided in work areas where hydrocarbons are present. Always wash hands and face with soap and water before eating, drinking, or smoking.

**Section 9 - Special Precautions and Comments**

**Storage/Handling Requirements:** Do not transfer to unmarked containers. Store in closed containers away from heat, sparks, open flame, or oxidizing material. This product is not classified as hazardous under DOT regulations. Fire extinguishers should be kept readily available. See NFPA 30 and OSHA 1910.106 –Flammable and Combustible Liquids.

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**DOT Transportation Data (49 CFR 172.101):****Shipping Name:** Not Regulated**Shipping Symbols:****Hazard Class:****ID No.:****Packing Group:****Packaging Authorizations****a) Exceptions:****b) Non-bulk Packaging:****c) Bulk Packaging:****Quantity Limitations****a) Passenger, Aircraft, or Railcar:****b) Cargo Aircraft Only:****Vessel Stowage Requirements****a) Vessel Stowage:****b) Other:**

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**Prepared By:****Revision Notes:**

**Disclaimer:** The information contained herein is based upon data available to us, and reflects our best professional judgment. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data, the results to be obtained from the use thereof, or that any such use does not infringe any patent. Since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for its particular purpose.



## MATERIAL SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

<b>MANUFACTURER/SUPPLIER:</b> <b>WD-40 Products [Canada] Ltd.</b> <b>P.O. Box 220</b> <b>Toronto, Ontario M9C 4V3</b>  <b>Information Phone #: (416) 622-9881</b> <b>Emergency Phone # 24 hr:</b> <b>Canutec: (613) 996-6666</b> Designated for use only in the event of chemical emergencies involving a spill, leak, fire exposure or accident involving chemicals	<b>US Office:</b> <b>WD-40 Company</b> <b>1061 Cudahy Place</b> <b>San Diego, CA 92110</b>  <b>Information Phone #: (619) 275-1400</b> <b>Emergency Phone # 24 hr:</b> <b>Chemtrec: (800) 424-9300</b> Designated for use only in the event of chemical emergencies involving a spill, leak, fire exposure or accident involving chemicals.
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PRODUCT NAME: WD-40 Specialist Penetrant  
 PRODUCT USE: Cleaner, lubricant.  
 MSDS DATE OF PREPARATION: February 3, 2012

### SECTION 2 HAZARDS IDENTIFICATION

**DANGER!** Very Flammable aerosol. Contents under pressure. Harmful or fatal if swallowed. If swallowed, may be aspirated and cause lung damage. May cause eye, skin and respiratory tract irritation. May cause allergic skin reaction (sensitization). Avoid eye contact. Use only with adequate ventilation. Keep away from heat, sparks, flames and all other sources of ignition.

#### POTENTIAL HEALTH EFFECTS:

PRIMARY ROUTES OF ENTRY: Inhalation, skin and eye contact.

#### ACUTE EFFECTS:

**INGESTION:** This product has low oral toxicity. If swallowed, this material may cause irritation of the mouth, throat and esophagus. Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea, dizziness, drowsiness and other central nervous system effects. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

**EYES:** Contact may be irritating to eyes. May cause redness, stinging, swelling and tearing.

**SKIN:** May cause skin irritation with short-term exposure with redness, itching and burning of the skin. Prolonged and/or repeated contact may produce defatting and possible dermatitis. Repeated contact may result in an allergic skin reaction.

**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 EFFECTS:** Prolonged or repeated skin contact may defat the skin resulting in irritation and dermatitis.

### SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Percent
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LVP Petroleum Solvent	64742-47-8	30-35%
Petroleum Solvent	64742-47-8	20-40%
Calcium Sulfonate	Proprietary	<5%
Petroleum Base Oil	64742-53-6 64742-56-9 64742-65-0	<10%
Carbon Dioxide	124-38-9	2-3%

#### SECTION 4 FIRST AID MEASURES

**For Medical Emergencies Call 1-888-324-7596 (24 hours/day)**

INGESTION: Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

EYE CONTACT: Flush thoroughly with water for 15 minutes. Remove contact lenses if present after the first 5 minutes and continue flushing. Get medical attention if irritation persists.

SKIN CONTACT: Wash with soap and water. If irritation develops and persists, get medical attention.

INHALATION: If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

#### SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water fog, dry chemical, carbon dioxide or foam. Cool fire exposed containers with water.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting cans.

UNUSUAL FIRE/EXPLOSION HAZARDS: Contents under pressure. Keep away from ignition sources and open flames. 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.

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

SPILL RESPONSE: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

#### SECTION 7 HANDLING AND STORAGE

HANDLING: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. 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.

STORAGE: Store in a cool, well-ventilated area, away from incompatible materials. Do not store in direct sunlight or above 120°F. U.F.C (NFPA 30B) Level 3 Aerosol.

#### SECTION 8 EXPOSURE CONTROLE/PERSONAL PROTECTION

**OCCUPATIONAL EXPOSURE LIMITS:**

Petroleum Solvent	1200 mg/m3 TWA Supplier Recommended (total hydrocarbon)
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Calcium Sulfonate	None Established
Petroleum Base oil	5 mg/m <sup>3</sup> TWA (inhalable) ACGIH TLV
Carbon Dioxide	5,000 ppm TWA ACGIH TLV 30,000 ppm STEL ACGIH TLV

**The Following Controls are Recommended for Normal Consumer Use of this Product**

**Engineering Controls:** Use in a well-ventilated area.

**Personal Protection:**

**Eye Protection:** Avoid eye contact. Always spray away from face.

**Skin Protection:** Avoid prolonged 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**

**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 a NIOSH 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:** Wash with soap and water after handling.

**SECTION 9 PHYSICAL DATA**

**APPEARANCE AND ODOR:** Clear liquid with a pleasant odor.

Boiling Point:	221°C (430°F)	Specific Gravity:	Not determined
Solubility in Water:	Insoluble	pH:	Not Applicable
Vapor Pressure:	2.03 mmHg @20°C (Petroleum Solvent)	Vapor Density:	5.3 (Petroleum Solvent)
Percent Volatile:	>80%	VOC:	24.51%
Coefficient of Water/Oil Distribution:	Not Determined	Kinematic Viscosity:	Not determined
Flash Point:	64°C (147°F) (CC ASTM D3828)	Flammable Limits:	LEL: 0.6% UEL: 5.6%
Pour Point:	Not determined		

**SECTION 10 STABILITY AND REACTIVITY**

**STABILITY:** Stable

**INCOMPATIBILITY:** Strong oxidizers, acids and bases. Avoid heat, sparks, flames and other sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and carbon dioxide, oxides of nitrogen and sulfur, smoke fumes, and unburned hydrocarbons.

**SECTION 11 TOXICOLOGICAL INFORMATION**

The oral toxicity of this product is estimated to be greater than 5,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard. This product contains a small amount <2% of a material that may cause allergic skin sensitization. The threshold for sensitization of this material in mixtures is 10% based on test data.

None of the components of this product is listed as a carcinogen or suspected carcinogen or is considered a reproductive hazard.

SECTION 12 ECOLOGICAL INFORMATION
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No data is currently available.

SECTION 13 DISPOSAL CONSIDERATIONS
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**WASTE DISPOSAL METHOD:** If this product becomes a waste, it would be expected to meet the criteria of a hazardous waste based on flammability. However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Dispose in accordance with federal, state, and local regulations. Do not puncture, crush or incinerate containers, even when empty.

SECTION 14 TRANSPORT INFORMATION
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U.S. DOT Hazard Classification: Consumer Commodity, ORM-D

After 1/1/2014 UN1950, Aerosols, 2.1 Ltd. Qty (Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)

Canadian TDG Classification: Consumer Commodity / Limited Quantity.

IMDG Code Hazard Classification: UN1950, Aerosols, 2.1, LTD QTY

SECTION 15 REGULATORY INFORMATION
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U.S. FEDERAL REGULATIONS:

**CERCLA 103 Reportable Quantity:** This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA TITLE III:**

**Hazard Category For Section 311/312:** Acute Health, Fire Hazard, Sudden Release of Pressure

**Section 313 Toxic Chemicals:** This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

**Section 302 Extremely Hazardous Substances (TPQ):** None

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of this product are listed on the TSCA inventory.

**CANADIAN REGULATIONS:**

**Canadian Environmental Protection Act:** All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification

**Canadian WHMIS Classification:** Class B-5 (Flammable Aerosol), Class D-2-B (Toxic material causing other toxic effects)

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

SECTION 16 OTHER INFORMATION
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**HMIS Hazard Rating: Health – 2 (moderate hazard), Fire Hazard – 4 (severe hazard), Reactivity – 0 (minimal hazard)**

Revision Date: New MSDS

Supersedes: N/A

Prepared By: Industrial Health & Safety Consultants, Inc. 1-203-929-3473

This MSDS complies with OSHA guidelines set by 29 CFR 1910.1200 and the Canadian WHMIS regulations. The foregoing information has been compiled from sources believed to be accurate but is not warranted to be. Recipients are advised to confirm in advance of need that data is correct. Standards change without notice. It is the responsibility of the recipient to insure that their personnel have been notified of any changes which may affect them. The data provided on this MSDS are not meant to be used as specifications, only as guideline information as to the safe use of this product. User should refer to applicable laws before use.

N/D = Not Determined N/E = Not Established N/A = Not Applicable



# WD-40



## MATERIAL SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**MANUFACTURER/SUPPLIER:****US Office:**

**WD-40 Company**  
**1061 Cudahy Place**  
**San Diego, CA 92110**

**Information Phone #:** (619) 275-1400

**Emergency Phone # 24 hr:**

**Chemtrec: (800) 424-9300 –**

Designated for use only in the event of chemical emergencies involving a spill, leak, fire exposure or accident involving chemicals.

**Canadian Office:**

**WD-40 Products [Canada] Ltd.**  
**P.O. Box 220**  
**Toronto, Ontario M9C 4V3**

**Information Phone #:** (416) 622-9881

**Emergency Phone # 24 hr:**

**Canutec: (613) 996-6666 –**

Designated for use only in the event of chemical emergencies involving a spill, leak, fire exposure or accident involving chemicals

PRODUCT NAME: WD-40 Smart Straw Aerosol

PRODUCT USE: Cleaner, lubricant.

MSDS DATE OF PREPARATION: March 10, 2013

### SECTION 2 HAZARDS IDENTIFICATION

**DANGER!** Harmful or fatal if swallowed. Flammable aerosol. Contents under pressure. Avoid eye contact. Use with adequate ventilation. Keep away from heat, sparks and all other sources of ignition.

**POTENTIAL HEALTH EFFECTS:**

**PRIMARY ROUTES OF ENTRY:** Inhalation, skin and eye contact.

**ACUTE EFFECTS:**

**INGESTION:** This product has low oral toxicity. Swallowing of the liquid contents may cause irritation, nausea, vomiting and diarrhea. The liquid contents are an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis.

**EYES:** Contact may be mildly irritating to eyes. May cause redness and tearing.

**SKIN:** Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.

**INHALATION:** High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. May aggravate existing respiratory conditions such as asthma. Intentional abuse may be harmful or fatal.

**CHRONIC EFFECTS:** None expected.

### SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

<b>Ingredient</b>	<b>CAS Number</b>	<b>Percent</b>
Aliphatic Petroleum Distillates	64742-47-8 64742-88-7	50-70%
Petroleum Base Oil	64742-58-1 64742-53-6 64742-56-9 64742-65-0	30-35%
Non-Hazardous Ingredients	Proprietary	<10%
Carbon Dioxide	124-38-9	2-3%

#### SECTION 4 FIRST AID MEASURES

**For Medical Emergencies Call 1-888-324-7596 (24 hours/day)**

**INGESTION:** Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

**EYE CONTACT:** Flush thoroughly with water. Get medical attention if irritation persists.

**SKIN CONTACT:** Wash with soap and water. If irritation develops and persists, get medical attention.

**INHALATION:** If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

#### SECTION 5 FIRE FIGHTING MEASURES

**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.

**SPECIAL FIRE FIGHTING PROCEDURES:** Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

**UNUSUAL FIRE/EXPLOSION HAZARDS:** Contents under pressure. Aerosol containers may burst under fire conditions. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

**SPILL RESPONSE:** Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area. 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. Report spills to authorities as required.

#### SECTION 7 HANDLING AND STORAGE

**HANDLING:** Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use with adequate ventilation. Keep away from heat, sparks and open flames. Wash thoroughly with soap and water after handling. Do not puncture or incinerate containers. Keep can away from electrical current or battery terminals. Electrical arcing can cause burn-through (puncture) which may result in flash fire, causing serious injury. Keep out of the reach of children.

**STORAGE:** Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol.

#### SECTION 8 EXPOSURE CONTROLE/PERSONAL PROTECTION

**OCCUPATIONAL EXPOSURE LIMITS:**

Aliphatic Petroleum Distillates	100 ppm TWA ACGIH TLV 1200 mg/m3 TWA Manufacturer Recommended
Petroleum Base Oil	5 mg/m3 TWA ACGIH TLV 10 mg/m3 STEL ACGIH TLV
Non-Hazardous Ingredients	None Established
Carbon Dioxide	5000 ppm TWA, 30,000 ppm STEL ACGIH TLV

**The Following Controls are Recommended for Normal Consumer Use of this Product**

**Engineering Controls:** Use in a well-ventilated area.

**Personal Protection:**

**Eye Protection:** Avoid eye contact. Safety glasses or goggles recommended.

**Skin Protection:** Avoid prolonged 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**

**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 a NIOSH 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:** Wash with soap and water after handling.

SECTION 9 PHYSICAL DATA

APPEARANCE AND ODOR: Light amber liquid with a mild odor.

Boiling Point:	361 - 369°F (183 - 187°C)	Specific Gravity:	0.8 – 0.82 @ 60°F
Solubility in Water:	Insoluble	pH:	Not Applicable
Vapor Pressure:	95-115 PSI @ 70°F	Vapor Density:	Greater than 1
Percent Volatile:	70-75%	VOC:	412 grams/liter (49.5%)
Coefficient of Water/Oil Distribution:	Not Determined	Kinematic Viscosity:	2.79-2.96cSt @ 100°F
Flash Point:	122°F (49°C) Tag Open Cup (concentrate)	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8.0%
Pour Point:	-63°C (-81.4°F) ASTM D-97		

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Strong oxidizing agents. Avoid heat and open flames. Do not puncture or incinerate containers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide.

SECTION 11 TOXICOLOGICAL INFORMATION

The oral toxicity of this product is estimated to be greater than 5,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.

None of the components of this product is listed as a carcinogen or suspected carcinogen or is considered a reproductive hazard.

SECTION 12 ECOLOGICAL INFORMATION

No data is currently available.

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: If this product becomes a waste, it would be expected to meet the criteria of a hazardous waste based on flammability. However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Dispose in accordance with federal, state, and local regulations.

SECTION 14 TRANSPORT INFORMATION

DOT Surface Shipping Description: Consumer Commodity, ORM-D

After 1/1/2014 UN1950, Aerosols, 2.1 Ltd. Qty (Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)

Canadian TDG Classification: Limited Quantity

IMDG Code Hazard Classification: UN1950, Aerosols, 2.1.

SECTION 15 REGULATORY INFORMATION
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U.S. FEDERAL REGULATIONS:

CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills as required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Acute Health, Fire Hazard, Sudden Release of Pressure

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

CANADIAN REGULATIONS:

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification

Canadian WHMIS Classification: Class B-5 (Flammable Aerosol).

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

SECTION 16 OTHER INFORMATION
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**HMIS Hazard Rating: Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)**

Revision Date: 03/10/13

Supersedes: 07/21/12

Prepared By: Industrial Health & Safety Consultants, Inc. 1-203-929-3473

This MSDS complies with OSHA guidelines set by 29 CFR 1910.1200 and the Canadian WHMIS regulations. The foregoing information has been compiled from sources believed to be accurate but is not warranted to be. Recipients are advised to confirm in advance of need that data is correct. Standards change without notice. It is the responsibility of the recipient to insure that their personnel have been notified of any changes which may affect them. The data provided on this MSDS are not meant to be used as specifications, only as guideline information as to the safe use of this product. User should refer to applicable laws before use.

N/D = Not Determined N/E = Not Established N/A = Not Applicable



# FairmountSantrol

## Fiche signalétique

Date : 16 août 2011

Remplace : 10 août 2009

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### Section 1 : Identification du produit

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**Nom commercial étiqueté :** Silice, sable de lac ou de sablière; toutes catégories

**Application :** Sable de fonderie

**Nom chimique :** Silice cristalline sous forme de quartz; dioxyde de silicium

**Fabricant :**

Fairmount Santrol  
3450 E 2056<sup>th</sup> Road, P.O. Box 119  
Wedron, IL 60557  
Téléphone : (815) 433-2449

**Numéro de téléphone d'urgence**

**ChemTrec :** (800) 424-9300

*« Ce produit n'est pas destiné au sablage par jet et est strictement interdit à cette fin »*

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### Section 2 : Identification des risques

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**Classification SGH :**

**Physique :**

Non classé

**Santé :**

Toxicité systémique pour certains  
organes cibles (expositions répétées)  
Catégorie 1

**Environnement :**

Non classé

Étiquette SGH :



1

**Déclaration des risques**

**AVERTISSEMENT**

Cause des lésions aux poumons lors d'expositions  
prolongées ou répétées par inhalation

**Prévention**

Ne pas inhaler la poussière.

Recourir à des soins médicaux en cas de malaise.

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**APERÇU DES RISQUES :** Ce produit est un minéral chimiquement inerte, incombustible. **Risque de cancer et de lésions aux poumons. Ne pas inhaler la poussière. Peut causer des lésions retardées aux poumons. L'exposition à long terme peut causer la silicose. La silicose est une maladie respiratoire pouvant entraîner des lésions retardées, invalidantes et parfois mortelles aux poumons. Le Centre international de recherche sur le cancer (CIRC) et le National Toxicology Program (NTP) ont établi que la silice cristalline respirable inhalée au travail peut causer le cancer chez les êtres humains. Le risque de blessure est fonction de la durée et du degré de l'exposition. Une exposition unique n'entraînera pas d'effets nocifs graves. Consulter la Section 11 « Risques pour la santé » pour des renseignements détaillés.** Pour de plus amples informations, voir la présentation de la limite d'exposition à la Section 8.

Éviter de générer de la poussière lors de la manipulation, de l'utilisation ou de l'entreposage. Utiliser une ventilation adéquate pour maintenir l'exposition en deçà des limites recommandées.

### Section 3 : Composition et renseignements sur les ingrédients

N° CAS / N° EINECS	Composant	Pourcentage	Classification GHS
14808-60-7 / 238-878-4	Silice cristalline sous forme de quartz	87 – 99,9 %	STOST (expositions répétées) Catégorie 1

Voir la présentation de la limite d'exposition professionnelle à la Section 8.

### Section 4 : Mesures de premiers soins

**Inhalation (importante) :** Amener la personne incommodée à l'air frais. Recourir à des soins médicaux en cas de gêne respiratoire.

**Ingestion :** Ne pas faire vomir. Si la victime est consciente, lui faire boire beaucoup d'eau. Consulter un médecin.

**Contact avec les yeux :** Rincer immédiatement les yeux avec de grandes quantités d'eau, en soulevant occasionnellement les paupières supérieures et inférieures. Si l'irritation persiste ou si un corps étranger est incrusté, recourir immédiatement à des soins médicaux.

**Contact avec la peau :** Aucune mesure d'urgence ne devrait être requise puisque le contact cutané avec ce produit n'affecte pas la peau. Laver la peau exposée à l'eau et au savon avant les pauses et à la fin des périodes de travail. Si l'irritation persiste, consulter un médecin.

### Section 5 : Mesures de lutte contre les incendies

**Moyens d'extinction :** Ce produit ne brûle pas. Il est compatible avec tous les moyens d'extinction. Utiliser tous les moyens appropriés pour circonscrire l'incendie.

**Procédures spéciales de lutte contre les incendies :** Aucune en ce qui concerne ce produit. Les pompiers devraient toujours porter un appareil respiratoire autonome en combattant les incendies, particulièrement ceux qui surviennent à l'intérieur ou dans les endroits clos.

**Risques inhabituels d'incendie ou d'explosion :** Aucun connu.

**Produits de combustion dangereux :** Aucun connu.

### Section 6 : Mesures en cas de déversement accidentel

Porter l'équipement de protection individuelle recommandé à la Section 8.

Si le produit n'est pas contaminé, le récupérer à l'aide d'une méthode sans poussière (aspirateur HEPA ou méthode humide) et le placer dans un contenant approprié à son utilisation. Si le produit est contaminé : a) utiliser la méthode appropriée au type de contamination, et b) considérer les risques éventuels de toxicité ou d'incendie associés aux contaminants. Éviter d'utiliser de l'air comprimé. Recueillir le produit dans des contenants adaptés à sa récupération, son recyclage ou son élimination.

Pour l'élimination; voir la Section 12.

### Section 7 : Manipulation et entreposage

**Manipulation :** Ne pas inhaler la poussière. *L'utilisation de ce produit peut générer des niveaux élevés de poussières de silice cristalline en suspension dans l'air, qui peuvent être invisibles à l'œil nu.* Prendre les précautions habituelles pour éviter la rupture des sacs et le déversement du produit. Utiliser les méthodes de travail adéquates et une ventilation appropriée avec dépoussiéreur afin de maintenir les niveaux de particules inhalables de silice cristalline en suspension dans l'air sous la limite d'exposition admissible (PEL) de l'OSHA. Si les niveaux de silice cristalline en suspension dans l'air ne peuvent être maintenus sous la valeur PEL, porter une protection respiratoire et des vêtements protecteurs lors de la manipulation de ce produit. Consulter la Section 8 pour de plus amples informations sur l'équipement de protection individuelle. Voir également la méthode normalisée de l'American Society for Testing and Materials (ASTM) E1132-99a, « *Standard Practice for Health*

*Requirements Relating to Occupational Exposure to Respirable Crystalline Silica* » (Méthode normalisée en matière de santé pour l'exposition professionnelle à la silice cristalline inhalable).

**Entreposage :** Maintenir la propreté des aires d'entreposage et d'utilisation pour éviter l'accumulation de poussière dans les lieux de travail. Ce produit n'est pas réactif dans des conditions normales. *Remarque :* Le quartz est incompatible avec les comburants forts tels que l'acide fluorhydrique, le fluor, le trifluorure de chlore ou le difluorure d'oxygène.

La norme de communication des risques 29 CFR §1910.1200 de l'OSHA et les lois provinciales, municipales et d'État relatives au « droit à l'information » des ouvriers doivent être rigoureusement suivies, y compris la nécessité de former les employés sur le contenu de cette fiche de données de sécurité. ***Avertir les employés (et les clients utilisateurs en cas de vente) par le biais d'affiches et d'autres moyens des risques potentiels pour la santé associés à l'utilisation de ce produit et leur prodiguer une formation quant à l'équipement de protection individuelle à porter, aux méthodes de travail appropriées et aux installations techniques qui réduiront leurs risques d'exposition.***

La silice cristalline figure sur la liste de l'État de la Californie (Proposition 65) des produits exigeants l'avertissement suivant :

*Ce produit peut contenir des quantités décelables de produits chimiques connus par l'État de la Californie comme causant le cancer, des malformations congénitales ou d'autres effets nocifs sur la reproduction.*

## Section 8 : Contrôle de l'exposition et protection individuelle

**Évacuation locale :** Utiliser des enceintes d'isolement, une ventilation à évacuation locale ou d'autres installations techniques pour limiter la quantité de poussière en suspension dans l'air. Consulter le bulletin de l'ACGIH « *Industrial Ventilation, A Manual of Recommended Practice* » (Ventilation industrielle, manuel des méthodes recommandées) – dernière édition.

**Protection oculaire :** Porter des lunettes de protection ou des lunettes étanches contre les agents chimiques lorsque des particules sont susceptibles de blesser les yeux, tel qu'indiqué dans la réglementation de l'OSHA sur la protection oculaire et faciale 29 CFR §1910.133.

**Protection de la peau :** De bonnes pratiques d'hygiène personnelle doivent être observées, dont le lavage de la peau exposée à l'eau et au savon et le nettoyage des vêtements de travail devenus poussiéreux.

**Protection respiratoire :** Porter un appareil respiratoire à adduction d'air ou à air filtré homologué NIOSH si les limites d'exposition sont dépassées (voir le tableau ci-dessous). La protection respiratoire appropriée pour la silice cristalline inhalable se fonde sur la concentration et la durée d'exposition aux particules en suspension pour un respirateur particulier. Un programme de protection respiratoire conforme à la norme 29 CFR §1910.134 de l'OSHA doit être mis sur pied lorsque les conditions de travail suggèrent l'utilisation d'un respirateur. La norme Z88.2 (révision récente) de l'ANSI « *American National Standard for Respiratory Protection* » (Norme américaine nationale pour la protection respiratoire) doit également être prise en considération. Le port de tout respirateur à ajustement serré doit être testé qualitativement ou quantitativement pour chaque utilisateur. Le NIOSH recommande le port d'une protection respiratoire lorsqu'il est impossible de recourir à des installations techniques de contrôle efficaces ou lorsque celles-ci sont en cours d'installation afin de limiter l'exposition à la silice cristalline inhalable.

CONCENTRATION DE SILICE CRISTALLINE EN SUSPENSION DANS L'AIR	PROTECTION RESPIRATOIRE MINIMALE
Jusqu'à 0,5 mg/m <sup>3</sup>	Respirateur filtrant avec filtre à particules à haute efficacité (HEPA).
Jusqu'à 1,25 mg/m <sup>3</sup>	Masque respiratoire filtrant intégral alimenté avec filtre HEPA. Tout respirateur à adduction d'air utilisé en mode d'alimentation continu.
Jusqu'à 2,5 mg/m <sup>3</sup>	Masque respiratoire filtrant intégral alimenté avec filtre HEPA. Tout respirateur filtrant alimenté à ajustement serré et à filtre HEPA.
Jusqu'à 25 mg/m <sup>3</sup>	Respirateur à adduction d'air à la demande ou par un autre mode de pression positive.
Entrée d'urgence ou planifiée dans une zone aux concentrations inconnues ou présentant un danger immédiat	Jusqu'à 500 mg/m <sup>3</sup> : appareil respiratoire autonome à masque intégral alimenté à la demande ou par un autre mode de pression positive. Respirateur à masque intégral à adduction d'air à la demande ou par un autre mode de pression positive combiné à un appareil respiratoire autonome auxiliaire à



# Fiche signalétique

## Silice, sable de lac et de sablière; toutes catégories

Page 4 de 8

<b>pour la vie ou la santé (DIVS)</b>	pression positive.
<b>Évacuation</b>	Respirateur filtrant à masque intégral avec filtre HEPA. Tout appareil respiratoire autonome adéquat pour évacuation.
<b>N'utiliser qu'une protection respiratoire homologuée par le NIOSH. Consulter les normes 29 CFR §1910.134 et 42 CFR §84. Voir également la norme Z88.2 (dernière révision) de l'ANSI « American National Standard for Respiratory Protection » (Norme américaine nationale pour la protection respiratoire).</b>	

### Limites d'exposition professionnelle :

Limites d'exposition professionnelle :								
Produit chimique	Pourcentage (en poids)	Limites d'exposition						Unité
		OSHA		NIOSH		ACGIH		
		Limite d'exposition moyenne pondérée dans le temps (TWA)	Limite d'exposition à court terme (STEL)	Limite d'exposition moyenne pondérée dans le temps (TWA)	Limite d'exposition à court terme (STEL)	Limite d'exposition moyenne pondérée dans le temps (TWA)	Limite d'exposition à court terme (STEL)	
Silice cristalline (quartz)	87 – 99,9 %	$\frac{10 \text{ mg/m}^3}{\% \text{SiO}_2 + 2}$	N.É.	0,05 <sup>a</sup>	N.É.	0,025 <sup>a</sup>	N.É.	mg/m <sup>3</sup>
N.É. = Non établi. mg/m <sup>3</sup> = milligrammes par mètre cube d'air.								
a = Fraction inhalable.								
Les limites d'exposition admissibles (PEL) de l'OSHA et les valeurs limites d'exposition (TLV) de l'ACGIH sont des moyennes pondérées de concentration sur 8 heures (TWA) durant une semaine de travail de 40 heures. La limite d'exposition recommandée (REL) par le NIOSH est une concentration pondérée en fonction du temps allant jusqu'à 10 heures de travail par jour durant une semaine de 40 heures de travail. La limite d'exposition à court terme (STEL) est basée sur une période de 15 minutes.								

## Section 9 : Propriétés physiques et chimiques

**Aspect :** Blanc à beige, granulaire  
**pH :** Sans objet  
**Densité (eau = 1) :** 2,65  
**Solubilité dans l'eau :** Insoluble  
**Densité de vapeur :** Sans objet  
**Tension de vapeur :** Sans objet

**Odeur :** Inodore  
**Point de fusion :** 1 710 °C (3 110 °F)  
**Taux d'évaporation :** Aucun  
**Point d'ébullition :** 2 230 °C (4 046 °F)  
**Température d'auto-inflammation :** Ne brûle pas  
**Seuils d'inflammabilité (inf./sup.) :** Sans objet

## Section 10 : Stabilité et réactivité

**Stabilité :** Stable dans des conditions normales de manipulation et d'entreposage.

**Polymérisation dangereuse :** Ne se produira pas.

**Incompatibilité chimique :** Des comburants forts tels que le fluor, le trifluorure de chlore, le trioxyde de manganèse et le difluorure d'oxygène peuvent provoquer un incendie.

**Produits de décomposition dangereux :** La silice se dissout dans l'acide fluorhydrique et produit un gaz corrosif, le trifluorure de silicium.

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## Section 11 : Renseignements sur la toxicité

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L'inhalation de silice inhalable ne devrait pas provoquer de lésion ou maladie perceptible même si des lésions permanentes aux poumons peuvent se produire. L'inhalation de poussière de silice peut avoir les effets chroniques graves suivants sur la santé :

**Silicose :** La principale préoccupation est la silicose, provoquée par l'inhalation et la rétention de poussière de silice cristalline inhalable. La silicose peut se présenter sous différentes formes : chronique (ou ordinaire), accélérée ou aiguë.

La silicose chronique ou ordinaire (souvent appelée silicose simple) est la forme la plus courante et peut se manifester de nombreuses années après l'exposition à des concentrations relativement faibles de poussière de silice cristalline inhalable en suspension dans l'air. Elle se définit par la suite en silicose simple ou compliquée. Des lésions aux poumons (apparaissant comme des opacités dans les radiographies) de moins de 1 centimètre de diamètre caractérisent la silicose simple, principalement dans les zones supérieures des poumons. Souvent, la silicose simple n'est pas associée à des symptômes ni à des changements détectables de la fonction pulmonaire ou à une incapacité. La silicose simple est parfois progressive et peut se développer en une silicose compliquée ou une fibrose massive progressive (FMP). La silicose compliquée ou la FMP sont caractérisées par des lésions aux poumons (apparaissant comme des opacités dans les radiographies) de plus de 1 centimètre de diamètre. Bien qu'il puisse n'y avoir aucun symptôme associé à la silicose compliquée ou à la FMP, les symptômes, lorsqu'ils sont présents, sont l'essoufflement, le sifflement, la toux et l'expectoration. La silicose compliquée ou la FMP peuvent être associées à une diminution de la fonction pulmonaire et peuvent être incapacitantes. Une FMP ou une silicose compliquée avancée peut entraîner la mort. Ces deux maladies peuvent aussi entraîner des maladies cardiaques accessoires à la maladie pulmonaire.

**Une silicose accélérée** peut se produire à la suite d'une exposition à des concentrations élevées de silice cristalline inhalable sur une période de temps relativement courte; des lésions pulmonaires peuvent apparaître dans les cinq ans suivant l'exposition initiale. La progression peut être rapide. Une silicose accélérée est similaire à la silicose chronique ou à la silicose ordinaire, sauf que les lésions aux poumons apparaissent plus rapidement et sa progression est aussi plus rapide.

**Une silicose aiguë** peut se produire à la suite d'expositions à des concentrations très élevées de silice cristalline inhalable sur une période de temps très courte, parfois de quelques mois. Les symptômes de la silicose aiguë comprennent un essoufflement progressif, de la fièvre, de la toux et une perte de poids. La silicose aiguë peut être mortelle.

### Cancer :

**CIRC :** Le Centre international de recherche sur le cancer (« CIRC ») a conclu qu'il y a des « *preuves suffisantes* » chez les êtres humains de la cancérogénicité de la silice cristalline sous forme de quartz ou de cristobalite de sources professionnelles », et qu'il y a des « *preuves suffisantes* » chez les animaux de laboratoire de la cancérogénicité du quartz et de la cristobalite ». L'évaluation d'ensemble du CIRC est que « la silice cristalline inhalée sous forme de quartz ou de cristobalite de sources professionnelles est *cancérogène pour les êtres humains (Groupe 1)* ». L'évaluation du CIRC remarque que « la cancérogénicité n'a été détectée dans aucune étude circonstancielle industrielle. La cancérogénicité peut dépendre des caractéristiques inhérentes à la silice cristalline ou de facteurs externes affectant l'activité biologique ou la distribution de ses polymorphes. » Pour de plus amples informations sur l'évaluation du CIRC, voir IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 68, « Silica, Some Silicates... » (1997).

**NTP :** Le National Toxicology Program (NTP), dans son neuvième rapport annuel sur les produits cancérogènes, a classé la « silice cristalline (inhalable) » comme un produit réputé cancérogène pour l'humain.

**OSHA :** La silice cristalline (quartz) n'est pas réglementée comme un produit cancérogène pour l'être humain par l'Occupational Safety and Health Administration (OSHA).

De nombreux articles ont été publiés sur la cancérogénicité de la silice cristalline que le lecteur peut consulter pour obtenir de plus amples informations. Voici quelques exemples d'articles récemment publiés :

« *Crystalline Silica and Lung Cancer: The Problem of Conflicting Evidence* », Indoor Built Environ., Volume 8 : 121-126 (1998).

« *Crystalline Silica and the Risk of Lung Cancer on the Potteries* », Occup. Environ. Med., Vol. 55 : 779-785 (1998).

- « *Is Silicosis Required for Silica-Associated Lung Cancer?* » American Journal of Industrial Medicine, Vol. 37 : 252- 259 (2000).
- « *Silica, Silicosis, and Lung Cancer: A Risk Assessment* », American Journal of Industrial Medicine, Vol. 38 : 8-18 (2000).
- « *Silica, Silicosis, and Lung Cancer: A Response to a Recent Working Group Report* », Journal of Occupational and Environmental Medicine, Vol. 42 : 704-720 (2000).
- « *NIOSH Hazard Review: Health Effects of Occupational Exposure to Respirable Crystalline Silica* », DDHS (NIOSH) Publication No. 2002-129 (2002).

**Maladies auto-immunes :** Il y a des preuves que l'exposition à la silice cristalline inhalable (sans silicose) ou que la silicose soit associée à une incidence accrue de plusieurs troubles auto-immuns : sclérodémie, lupus érythémateux disséminé, arthrite rhumatoïde et maladies du rein. Les publications suivantes peuvent être consultées à ce sujet :

- « *Occupational Exposure to Crystalline Silica and Autoimmune Disease* », Environmental Health Perspectives, Vol. 107, Supplement 5, pp. 793-802 (1999).
- « *Occupational Scleroderma* », Current Opinion in Rheumatology, Vol. 11 : 490-494 (1999).

**Tuberculose :** Les individus atteints de silicose ont un risque accru de développer une tuberculose pulmonaire s'ils sont exposés à des personnes souffrant de tuberculose. Pour de plus amples informations, les documents suivants peuvent être consultés :

- Occupational Lung Disorders, 3<sup>e</sup> éd., chapitre 12, « *Silicosis and Related Diseases* », Parkes, W. (1994).
- « *Risk of pulmonary tuberculosis relative to silicosis and exposure to silica dust in South African gold miners* », Occup. Environ. Med., Vol. 55 : 496-502 (1998).

**Maladie du rein :** Il y a des preuves que l'exposition à la silice cristalline inhalable (sans silicose) ou que la silicose soit associée à une incidence accrue de maladies du rein, dont la néphropathie au stade terminal. Les publications suivantes peuvent être consultées à ce sujet :

- « *Kidney Disease and Silicosis* », Nephron, Vol. 85 : 14-19 (2000).

Contact avec la peau : Aucun effet indésirable prévu.

Contact avec les yeux : Le contact peut provoquer une irritation mécanique et une lésion possible.

Ingestion : Aucun effet indésirable prévu en cas d'ingestion accidentelle normale.

Effets chroniques sur la santé : Voir la sous-section « Inhalation » ci-dessus en ce qui a trait à la silicose et au cancer, ainsi que d'autres renseignements concernant la santé humaine.

Troubles médicaux aggravés par l'exposition : Les personnes souffrant d'une maladie respiratoire, notamment d'asthme et de bronchite, ou sujettes aux irritations oculaires ne devraient pas être exposées à la poussière de silice cristalline inhalable.

Signes et symptômes de l'exposition : L'exposition à la poussière peut provoquer une irritation de la muqueuse et des voies respiratoires, de la toux, le mal de gorge, la congestion nasale, le sifflement et l'essoufflement. Cependant, il peut n'y avoir aucun signe ni symptôme immédiat d'exposition à des concentrations dangereuses de silice cristalline inhalable (quartz). Voir la sous-section « Inhalation » ci-dessus au sujet des symptômes de la silicose. L'absence de symptômes n'indique pas nécessairement l'absence de maladie.

**Valeur de toxicité aiguë :** Silice – dose létale 50 orale chez le rat 22 500 mg/kg

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## Section 12 : Renseignements écologiques

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Silice : Concentration létale 50 chez la carpe >10 000 mg/L/72 heures. Ce produit ne présente pas de risque prévu pour l'environnement.

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## Section 13 : Considérations relatives à l'élimination

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**Généralités :** Si le produit n'est pas contaminé, l'éliminer comme un minéral inerte non métallique. S'il est contaminé, l'éliminer conformément à la réglementation municipale, provinciale/d'État et fédérale en vigueur selon la contamination présente. La réglementation municipale peut être plus stricte que les exigences régionales et nationales. Le producteur de déchets est responsable d'établir leur toxicité et leurs caractéristiques physiques afin de déterminer leur identification et élimination adéquates conformément à la réglementation en vigueur.

**RCRA :** Ce produit, tel que vendu par Wedron Silica Company, n'est pas classé comme un déchet dangereux en vertu de la loi américaine Resource Conservation and Recovery Act ou de sa réglementation, sections 40 CFR §261 et suivantes.

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## Section 14 : Renseignements sur le transport

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Transport non réglementé par le ministère des transports des États-Unis (U.S. DOT), le règlement canadien sur le transport des marchandises dangereuses (TMD), ainsi que la réglementation de l'IMDG ou de l'IATA.

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## Section 15 : Informations relatives à la réglementation

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### États-Unis (gouvernement fédéral et États) :

**TSCA :** La silice cristalline (n° CAS 14808-60-7) figure sur l'inventaire des substances toxiques de l'EPA, Toxic Substance Control Act (TSCA) Section 8(b).

**RCRA :** La silice cristalline (n° CAS 14808-60-7) n'est pas classée comme un déchet dangereux en vertu de la loi américaine Resource Conservation and Recovery Act ou de sa réglementation, sections 40 CFR §261 et suivantes.

**Quantité à déclarer selon la section 103 de la loi CERCLA :** Aucune

**SARA 311/312 :** Catégories de risques à déclaration obligatoire selon les sections SARA 311/312 : Danger chronique pour la santé

**SARA 313 :** Ce produit ne contient aucune substance chimique soumise aux exigences de déclaration obligatoire en vertu de la section SARA 313 (40 CFR 372).

**Loi américaine sur la propreté de l'air (Clean Air Act) :** Ce produit n'a pas été traité avec une substance de Classe I ou de Classe II appauvrissant la couche d'ozone ou n'en contient pas.

**Loi américaine sur la propreté de l'eau (Clean Water Act) :** La silice cristalline (n° CAS 14808-60-7) n'est pas classée comme une substance dangereuse en vertu de la section 311.

**NTP :** La silice cristalline (quartz) est classée comme cancérigène.

**OSHA :** La silice cristalline (quartz) est considérée comme une substance toxique et dangereuse selon l'article 29 CFR 1910.1000.

**Loi américaine sur l'eau potable de 1986 – California Safe Drinking Water and Toxic Enforcement Act (Proposition 65) :** Ce produit contient de la silice cristalline (inhalable) classée comme une substance provoquant le cancer selon l'État de la Californie.

### Canada :

**Liste intérieure des substances (LIS) :** La silice cristalline (quartz) est une substance d'origine naturelle figurant sur la LIS canadienne.

**Classification du SIMDUT :** Silice cristalline - classe D, division 2, subdivision A (Matière très toxique provoquant d'autres effets toxiques).

### Autre :

**CIRC :** La silice cristalline (quartz) est classée par le CIRC comme une substance cancérigène du Groupe 1.

**European Inventory of Commercial Chemical Substances :** La silice cristalline (quartz) figure sur l'inventaire de l'EINECS; le numéro EINECS du quartz est : 238-878-4.

### Étiquetage dans la Communauté européenne :

Nocif                      Xn

Contient de la silice cristalline, quartz (238-878-4)

R48/20 Nocif : Danger de dommages graves à la santé lors d'une exposition prolongée par inhalation

S22 Ne pas inhaler la poussière

S38 En cas de ventilation insuffisante, porter une protection respiratoire adéquate

Des lois, réglementations ou ordonnances nationales, d'État, provinciales ou municipales sur les interventions d'urgence, sur le droit à l'information ou d'autres sujets peuvent être en vigueur – consulter les autorités compétentes.

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## **Section 16 : Autres renseignements**

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**Sites Web offrant des renseignements sur les effets sur la santé de l'exposition au travail à des substances chimiques contenues dans ce produit, et installations techniques et équipement de protection individuelle associés :**

Site Web de l'OSHA sur la silice cristalline <http://www.osha.gov/SLTC/silicacrystalline/index.html>

Revue des risques du NIOSH – Effets sur la santé de l'exposition professionnelle à la silice cristalline inhalable  
<http://www.cdc.gov/niosh/docs/2002-129/02-129a.html>

**Évaluation des risques selon la NFPA :** Santé : 1 Incendie : 0 Réactivité : 0

**Évaluation des risques selon le SIMD :** Santé : \* Incendie : 0 Réactivité : 0

\* Avertissement – possibilité d'effet chronique sur la santé – l'inhalation de poussière de silice peut provoquer des lésions ou maladies pulmonaires (silicose). Prendre les mesures appropriées pour éviter d'inhaler la poussière. Voir la section 8.

### **Classes de l'UE et mentions de risque aux fins de référence**

Xn Nocif

R48/20 Nocif : Danger de d'effets graves sur la santé lors d'une exposition prolongée par inhalation.

**Responsabilité de l'utilisateur :** La norme de communication des risques 29 CFR 1910.1200 de l'OSHA exige que cette fiche de données de sécurité soit mise à la disposition des employés qui manipulent ce produit ou peuvent y être exposés. Dispenser une formation aux employés relative aux précautions à prendre. Instruire les employés sur la façon de manipuler adéquatement ce produit.

**Exonération de responsabilité :** L'information que contient ce document s'applique uniquement à ce produit précis, tel que fourni. Elle pourrait ne pas être valide si ce produit est utilisé en combinaison avec d'autres substances. L'utilisateur est responsable de s'assurer que cette information convient à une utilisation particulière du produit et est suffisamment complète. Puisque l'utilisation réelle du produit décrit dans la présente est indépendante de notre volonté, Wedron Silica Company décline toute responsabilité découlant de son utilisation par autrui. Les avertissements appropriés et les procédures de manipulation adéquates doivent être fournis aux manutentionnaires et utilisateurs.

# **Silice, sable de lac ou de sablière (Toutes catégories)**

**Contient de la silice cristalline  
(quartz)**

## **AVERTISSEMENT**

**Cause des lésions aux poumons lors  
d'expositions prolongées ou répétées par  
inhalation**

Éviter d'inhaler la poussière.  
Utiliser uniquement avec une ventilation adéquate



### **PREMIERS SOINS**

**INHALATION** : Amener la personne incommodée à l'air frais. En cas de gêne respiratoire, recourir à des soins médicaux.

**INGESTION** : Diluer en buvant de l'eau. Si le malaise persiste, recourir à des soins médicaux.

**YEUX** : Laver à l'eau. Si l'irritation persiste ou si un corps étranger est incrusté, recourir à des soins médicaux.

**PEAU** : Laver la zone affectée à l'eau et au savon.

### **DÉVERSEMENT**

Nettoyer à l'aide d'une méthode sans poussière (aspirateur HEPA ou méthode humide) pour minimiser la production de poussière.

### **INCENDIE**

Ce produit ne brûle pas. En cas d'incendie, ce produit est compatible avec tous les moyens d'extinction.

**Évaluation des risques selon la NFPA** : Santé : 1, modéré;  
Feu : 0, aucun; Réactivité : 0, normalement stable.

### **MANIPULATION ET ENTREPOSAGE**

Minimiser la production et l'accumulation de poussière.

Pour des renseignements supplémentaires, lire la **Fiche  
signalétique** du produit.

### **Numéro de téléphone d'urgence 24 heures**

ChemTrec (800) 424-9300

### **Fabricant :**

Fairmount Santrol  
3450 E 2056<sup>th</sup> Road  
P.O. Box 119  
Wedron, IL 60557  
Téléphone : (815) 433-2449

16 août 2011

## 1. Identification

**Product identifier** MAP-Pro™ Premium Hand Torch Fuel

### Other means of identification

**SDS number** WC001

**Product code** Varies

**Recommended use** Hand Torch Fuel

**Recommended restrictions** None known.

### Manufacturer / Importer / Supplier / Distributor information

**Company name** Worthington Cylinder Corporation

**Address** 300 E. Breed St.  
Chilton, WI 53014  
US

**Telephone** Telephone Number: 1-920-849-1740

**E-mail** Ann.Stiefvater@worthingtonindustries.com

**Contact person** Ann Stiefvater

**Emergency phone number** CHEMTREC Domestic 1-800-424-9300  
International 1-703-527-3887

## 2. Hazard(s) identification

**Physical hazards** Flammable gases Category 1

Gases under pressure Liquefied gas

**Health hazards** Specific target organ toxicity, single exposure Category 3 narcotic effects

**OSHA hazard(s)** Not classified.

\*Hazards not stated here are "Not classified", "Not applicable" or "Classification not possible".

### Label elements

#### Hazard symbol



**Signal word** Danger

**Hazard statement** Extremely flammable gas. Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.

#### Precautionary statement

**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

**Response** Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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

**Hazard(s) not otherwise classified (HNOC)** Not classified.

### Supplemental information

**Hazard statement** May displace oxygen and cause rapid suffocation.

## 3. Composition/information on ingredients

### Mixture

#### Hazardous components

Chemical name	Common name and synonyms	CAS number	%
Propylene		115-07-1	99.5 - 100

Non-hazardous components		Common name and synonyms	CAS number	%
Chemical name				
Propane			74-98-6	0 - 0.5

#### 4. First-aid measures

Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists. If frostbite occurs, immerse involved area in warm water (between 100 F/38 C and 110 F/43 C, not exceeding 112 F/44 C). Keep immersed for 20 to 40 minutes. Seek medical assistance.
Eye contact	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 immediately.
Ingestion	Ingestion is not a typical route of exposure for gases or liquefied gases.
Most important symptoms/effects, acute and delayed	Not available.
Indication of immediate medical attention and special treatment needed	Exposure may aggravate pre-existing respiratory disorders. Treat symptomatically.

#### 5. Fire-fighting measures

Suitable extinguishing media	Dry chemical, CO2, water spray, fog, or foam.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	Not available.
Fire-fighting equipment/instructions	Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.  Move container from fire area if it can be done without risk.  Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. 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. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. Keep unnecessary personnel away.  Ensure adequate ventilation. In case of inadequate ventilation, use respiratory protection. Wear appropriate personal protective equipment (See Section 8).
Methods and materials for containment and cleaning up	Ventilate well, stop flow of gas or liquid if possible. Immediately contact emergency personnel.
Environmental precautions	Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sanitary sewers, waterways and/or groundwater.

#### 7. Handling and storage

Precautions for safe handling	Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Wear appropriate personal protective equipment (See Section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Do not breathe gas. Do not get in eyes, on skin, on clothing. Use only with adequate ventilation.
Conditions for safe storage, including any incompatibilities	Store in accordance with local, regional, national, and international regulations. Secure cylinders in an upright position at all times, close all valves when not in use. Store in a cool, dry, well-ventilated place. Keep container tightly closed and sealed until ready for use. Protect cylinders from damage.



## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Propylene (CAS 115-07-1)	TWA	500 ppm
Biological limit values	No biological exposure limits noted for the ingredient(s).	
Appropriate engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. The engineering controls also need to keep gas, vapor, or dust concentrations below any lower explosive limits.	
Individual protection measures, such as personal protective equipment		
Eye/face protection	Wear approved safety glasses or goggles.	
Skin protection		
Hand protection	Wear appropriate chemical resistant gloves.	
Other	Wear protective clothing appropriate for the risk of exposure.	
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	Not available.	
General hygiene considerations	Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices.	

## 9. Physical and chemical properties

<b>Appearance</b>	Colorless liquefied gas.
<b>Physical state</b>	Gas.
<b>Form</b>	Compressed liquefied gas.
<b>Color</b>	Colorless
<b>Odor</b>	Hydrocarbon or mercaptan if odorized
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	-301 °F (-185 °C)
<b>Initial boiling point and boiling range</b>	-54.4 °F (-48 °C)
<b>Flash point</b>	-162 °F (-107.8 °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>	2 %
<b>Flammability limit - upper (%)</b>	11 %
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	109.73 PSIG (21°C)
<b>Vapor density</b>	1.5 at 0°C
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Slight
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	927 °F (497.22 °C)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Molecular weight</b>	42
<b>Percent volatile</b>	Essentially 100%
<b>VOC (Weight %)</b>	100 %

## 10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Stable under normal temperature conditions and recommended use.
Possibility of hazardous reactions	Polymerization will not occur.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Strong acids. Halogens.
Hazardous decomposition products	None known.

## 11. Toxicological information

### Information on likely routes of exposure

Ingestion	Not available.
Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.

Symptoms related to the physical, chemical and toxicological characteristics

### Information on toxicological effects

**Acute toxicity** Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn").

Components	Species	Test Results
Propylene (CAS 115-07-1)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
<b>Skin corrosion/irritation</b>	Not available.	
<b>Serious eye damage/eye irritation</b>	Not available.	
<b>Respiratory sensitization</b>	Not available.	
<b>Skin sensitization</b>	Not available.	
<b>Germ cell mutagenicity</b>	Not available.	
<b>Carcinogenicity</b>		

### IARC Monographs. Overall Evaluation of Carcinogenicity

Propylene (CAS 115-07-1) 3 Not classifiable as to carcinogenicity to humans.

<b>Reproductive toxicity</b>	Not available.
<b>Specific target organ toxicity - single exposure</b>	Not available.
<b>Specific target organ toxicity - repeated exposure</b>	Not available.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	May cause central nervous system effects.

## 12. Ecological information

<b>Ecotoxicity</b>	Not expected to be harmful to aquatic organisms.
<b>Persistence and degradability</b>	Not available.
<b>Bioaccumulative potential</b>	Not available.
<b>Partition coefficient n-octanol / water (log Kow)</b>	
Propylene	1.77
<b>Mobility in soil</b>	Not available.
<b>Other adverse effects</b>	Not available.

### 13. Disposal considerations

<b>Disposal instructions</b>	Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations.
<b>Local disposal regulations</b>	Not available.
<b>Hazardous waste code</b>	Not regulated.
<b>Waste from residues / unused products</b>	Not available.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

<b>UN number</b>	UN1077
<b>UN proper shipping name</b>	Propylene
<b>Transport hazard class(es)</b>	2.1
<b>Subsidiary class(es)</b>	-
<b>Packing group</b>	Not available.
<b>Special precautions for user</b>	Not available.
<b>Labels required</b>	2.1
<b>Special provisions</b>	19, T50
<b>Packaging exceptions</b>	306
<b>Packaging non bulk</b>	304
<b>Packaging bulk</b>	314, 315

#### IATA

<b>UN number</b>	UN1077
<b>UN proper shipping name</b>	Propylene
<b>Transport hazard class(es)</b>	2.1
<b>Subsidiary class(es)</b>	-
<b>Packaging group</b>	Not available.
<b>Labels required</b>	2.1
<b>ERG Code</b>	Not available.
<b>Special precautions for user</b>	Not available.

#### IMDG

<b>UN number</b>	UN1077
<b>UN proper shipping name</b>	Propylene
<b>Transport hazard class(es)</b>	2.1
<b>Subsidiary class(es)</b>	-
<b>Packaging group</b>	Not available.
<b>Labels required</b>	2.1
<b>EmS</b>	Not available.
<b>Special precautions for user</b>	Not available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** No information 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 on regulatory list.

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

Propylene (CAS 115-07-1)

LISTED

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

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

<b>SARA 302 Extremely hazardous substance</b>	No
<b>SARA 311/312 Hazardous chemical</b>	Yes

#### 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)

Propylene (CAS 115-07-1)

##### Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)

Hazardous substance

##### 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

Not listed.

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

Not regulated.

##### DEA Exempt Chemical Mixtures Code Number

Not regulated.

##### Food and Drug Administration (FDA)

Not regulated.

#### US state regulations

##### US. Massachusetts RTK - Substance List

Propylene (CAS 115-07-1)

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

Propylene (CAS 115-07-1) 500 LBS

##### US. Pennsylvania RTK - Hazardous Substances

Propylene (CAS 115-07-1)

##### US. Rhode Island RTK

Propylene (CAS 115-07-1)

##### US. California Proposition 65

##### 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
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
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)

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

<b>Issue date</b>	12-07-2012
<b>Revision date</b>	-
<b>Version #</b>	01
<b>Further information</b>	Not available.

**Disclaimer**

All information in this Material Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.



Zep Inc.  
1310 Seaboard Industrial Blvd.  
Atlanta, GA 30318  
1-877-I-BUY-ZEP (428-9937)  
www.zep.com

# Material Safety Data Sheet

## and Safe Handling and Disposal Information

### Section 1. Chemical Product and Company Identification

**Product name** REACH  
**Product use** Liquid Hand Cleaner  
**Product code** 0925  
**Date of issue** 03/06/08 **Supersedes** 04/14/03

**Emergency Telephone Numbers** **For MSDS Information:**  
Compliance Services 1-877-I-BUY-ZEP (428-9937)

**For Medical Emergency**  
INFOTRAC: (877) 541-2016 Toll Free - All Calls Recorded

**For Transportation Emergency**  
CHEMTREC: (800) 424-9300 - All Calls Recorded  
In the District of Columbia (202) 483-7616

Printing date: 08/01/08

**Prepared By**  
Compliance Services  
1420 Seaboard Industrial Blvd.  
Atlanta, GA 30318

### Section 2. Composition, Information on Ingredients

Name of hazardous ingredients	CAS #	% by Weight	Exposure Limits
HYDROTREATED LIGHT PETROLEUM DISTILLATES; paraffinic, naphthenic solvent	64742-47-8	30-40	Supplier Suggested (United States). PEL: 100 ppm

### Section 3. Hazards Identification

#### Acute Effects

#### Routes of Entry

Ingestion.

**Skin** Non-sensitizer to skin.

**Eyes** Slightly hazardous by the following route of exposure: of eye contact (irritant).  
Inflammation of the eye is characterized by redness, watering and itching.

**Inhalation** Inhalation not likely under normal use conditions. Can cause dizziness, lightheadedness, headache, nausea, and blurred vision.

**Ingestion** No data on acute toxicity of the product when ingested.

**NOTE:** MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

**Carcinogenic Effects** Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

**Chronic Effects** Prolonged or repeated contact may dry skin and cause irritation.

**See Toxicological Information (section 11)**

#### HMIS

Health	0
Fire Hazard	0
Reactivity	0
Personal Protection	N/A

### Section 4. First Aid Measures

#### Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

#### Skin Contact

Rinse with plenty of running water. Get medical attention if irritation develops.

#### Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

#### Ingestion

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If affected person is conscious, give plenty of water to drink. Get medical attention immediately.

### Section 5. Fire Fighting Measures

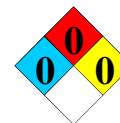
**Flash Point** Not determined.

**Flammable Limits** Not determined.

**Flammability** Gel structure inhibits combustibility of solvent.

**Fire hazard** None.

**Fire-fighting procedures** None.



### Section 6. Accidental Release Measures

#### Spill Clean up

Absorb with an inert material and transfer the spilled material and absorbent to an appropriate waste disposal container. To clean the floor and all objects contaminated by this material, use [\*\*\*]. detergent. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Section 7. Handling and Storage**

**Handling** Avoid contact with eyes.

**Storage** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store between the following temperatures: 40°F - 120°F.

**Section 8. Exposure Controls, Personal Protection****Personal Protection****Protective Clothing (Pictograms)**

**Eyes** No special protection is required.

**Body** No special protective clothing is required.

**Respiratory** No special protection is required.

**Section 9. Physical and Chemical Properties**

<b>Physical State</b>	Liquid. [Gel]	<b>Color</b>	Green.
<b>pH</b>	7.5 - 8.5	<b>Odor</b>	Almond-like.
<b>Boiling Point</b>	Not determined.	<b>Vapor Pressure</b>	Not determined.
<b>Specific Gravity</b>	0.95	<b>Vapor Density</b>	Not determined.
<b>Solubility</b>	Emulsifies in water.	<b>Evaporation Rate</b>	Not determined.
		<b>VOC (Consumer)</b>	0 (g/l).

**Section 10. Stability and Reactivity**

**Stability and Reactivity** The product is stable.

**Incompatibility** Reactive with oxidizing agents.

**Hazardous Polymerization** Will not occur.

**Hazardous Decomposition Products** Emits toxic fumes when heated to decomposition.

**Section 11. Toxicological Information**

**Toxicity to Animals** **Hydrotreated Light Petroleum Distillates:**^[25,45,50,70  
DERMAL (LD50):□Acute: 3000 mg/kg [Rabbit].

**Section 12. Ecological Information**

**Ecotoxicity** Not available.

**Biodegradable/OECD** Not available.

**Section 13. Disposal Considerations**

**Waste Information** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Waste Stream** Code: - (None.)  
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

**Section 14. Transport Information**

**Proper shipping name** Not a DOT controlled material (United States).

**DOT Classification** Not a DOT controlled material (United States).

**UN number** Not regulated.

**NOTE:** DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

**TDG Classification** Not a TDG-controlled material.

**Section 15. Regulatory Information**

**U.S. Federal Regulations** SARA 313 toxic chemical notification and release reporting:  
No products were found.

**Clean Water Act (CWA) 311:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

All Components of this product are listed or exempt from listing on TSCA inventory.

**State Regulations** California Prop. 65: No products were found.

**WHMIS (Canada)** Not controlled under WHMIS (Canada).

**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.*

# Material Safety Data Sheet

## Series 72000

### 1 Company and Product Identification

Manufacturer's Name: STAR BRONZE COMPANY, INC.  
PO Box 2206  
Alliance, Ohio 44601-0206

Emergency Telephone: 330-823-1550

Information Telephone: 330-823-1550

Identity: **72000 Zip-Strip Paint & Clear Finish Remover**

Date Prepared: January 10, 2006 (revised)

### 2 Ingredient Composition Information

Ingredient CAS No.	% by weight	---- PPM ---- OSHA PEL	ACGIH TLV
Methylene Chloride 75-09-2	80	25*	
		*Stel 125 PPM	
Mineral Spirits 8052-41-3	5	500	100
Methanol 67-56-1	10-15	200 (Skin)	200 (Skin)

Section 313: Supplier Notification. This product contains the following toxic chemicals, subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right to Know Act of 1986, and of 40 CFR 372. **Methylene Chloride and Methanol.**

This information must be included in all Material Safety Data Sheets that are copied and distributed for this material.

### 3 Physical and Chemical Properties

**Boiling Range:** 104°F

**Evaporation Rate:** < 1 (Butyl Acetate=1.0)

**Percent Volatile:** 98.3%

**Appearance and Odor:** light blue semi-gelled liquid, sweetish organic odor

**VOC:** 194 grams/liter

**VOS:** 9.6 lbs./gal.

**Vapor Density (air=1):** > 1

**Weight per Gallon:** 9.75 lbs.

**Solubility in Water:** approx. 16% soluble in water

**Specific Gravity:** 1.17

**Vapor Pressure:** 272 MM Hg @ 20°C

(VOC Vapor Pressure less exempt solvent 12MM Hg @ 20°C)

### 4 Fire and Explosion Hazard Data

**Flash Point:** No flash to B.P. TOC & Seta C.C.

**Flammable Limits:** unknown

**LEL:** unknown **UEL:** unknown

**Extinguishing Media:** water fog, dry chemical, foam, carbon dioxide.

**Special Fire Fighting Procedures:** Fire fighters should wear full protective clothing and self-contained positive pressure

breathing apparatus with full face piece due to thermal decomposition products.

**Unusual Fire and Explosion Hazards:** Concentrated vapors can be ignited by high intensity ignition sources. Closed containers may rupture or explode when exposed to extreme heat.

**HMIS Codes:** Health 3, Flammability 1, Reactivity 0

**NFPA Codes:** Health 2, Flammability 1, Reactivity 0

### 5 Reactivity Data

**Stability:** Stable

**Conditions to Avoid:** High heat, open flame, welding arcs or other hot surfaces.

**Incompatibility:** Materials to avoid: Strong alkalis, oxygen, nitrogen peroxide, sodium, potassium, and other oxidizers and reactive metals.

**Hazardous Decomposition of By-products:** Hydrogen chloride, phosgene (small amounts), chlorine, carbon dioxide, carbon monoxide and various hydrocarbons.

**Hazardous Polymerization:** Will not occur

### 6 Health Hazard Data

**Routes of Entry:** Inhalation - Yes, Skin - Yes, Ingestion - Yes

**Health Hazard Acute and Chronic:**

**Inhalation:** Overexposure can cause nasal & respiratory irritation, central nervous system effects including fatigue, headaches, weakness, dizziness, nausea, dullness, unconsciousness or in extreme cases, death. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or prove fatal. Exposure to high concentrations can cause irregular heartbeat, cardiac arrest and death. Overexposure has been shown to cause adverse effects on the lungs, liver, kidney, nervous system and other internal organs. Carboxyhemoglobin levels can be elevated in persons exposed to methylene chloride and can cause a substantial stress on the cardiovascular system. This elevation can be additive to the increase caused by smoking and other carbon monoxide sources.

**Skin:** Prolonged or repeated contact of liquid can cause irritation, defatting of skin, and dermatitis. Prolonged single exposure can result in progressively severe burning sensation and redness. Can be absorbed through the skin causing adverse health effects as described above in the INHALATION section.

**Eyes:** Can cause severe irritation, redness, tearing and blurred vision.

**Ingestion:** Can cause gastrointestinal irritation, nausea, vomiting, diarrhea and death. Methylene Chloride metabolizes in the body to produce carbon monoxide which reduces the oxygen carrying capacity of the blood.

**Chronic Overexposure:** Excessive exposure may cause permanent brain and nervous system damage.

**Medical Conditions Aggravated by Exposure:** Alcoholism, acute and chronic liver and kidney disease, chronic lung disease, anemia, coronary disease or rhythm disorders of the heart. People having or suspected of having heart



trouble, pulmonary disorders or women during pregnancy, should consult their physician before using the product.

**Carcinogenicity:** IARC lists methylene chloride as a 2B Carcinogen (sufficient evidence for the carcinogenicity of methylene chloride to experimental animals and inadequate evidence for the carcinogenicity of methylene chloride to humans), NTP lists methylene chloride as an animal carcinogen. Methylene chloride is listed on the IARC and NTP Carcinogen lists, but not by OSHA.

#### Emergency First Aid Procedures:

**Inhalation:** If a person breathes in large amounts of vapors, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration, keep the affected person warm and at rest, get medical attention.

**Skin:** If material comes in contact with the skin, promptly wash the contaminated skin with soap and water. If it penetrates through clothing, remove clothing and wash the skin with soap and water. If irritation persists, get medical attention.

**Eyes:** If material comes in contact with the eyes, immediately flush the eyes with large amounts of water, occasionally lifting the lower and upper lids, get medical attention. Contact lenses should not be worn when working with this material.

**Ingestion:** If ingested, do not induce vomiting. Immediately give one or two glasses of water and call a physician, hospital emergency room or poison control center. If vomiting occurs, solvents aspirated into lungs can cause chemical pneumonia and systemic effects.

**NOTE TO PHYSICIAN:** Adrenaline should never be given to a person overexposed to Methylene Chloride. Avoid Epinephrine or similar drugs.

## 7 Precautions for Safe Handling & Use

#### Steps to be taken in case material is released or spilled

**Small Spill:** Mop up or absorb with absorbent material. Transfer to closed metal container.

**Large Spill:** Clear personnel from area. Do not breathe vapors. Ventilate area of leak or spill. If indoors, turn off heating or air conditioning systems to prevent vapors from contaminating entire building. Wear protective equipment including positive pressure self-contained or air supplied breathing apparatus. Stop spill at source and contain liquid. Clean up by mopping or with absorbent material and place in a closed metal container for disposal. Do not flush to sewer or water ways.

#### Waste Disposal Method:

**Small Spill:** Dispose of according to all local, state and federal regulations.

**Large Spill:** Dispose of by sending to licensed reclaimer or permitted incinerator, according to local, state and federal regulations.

**Precautions to be taken in handling and storing:** Store in tightly sealed, labeled containers in a cool, dry, well ventilated area. Aluminum equipment should not be used for storage and/or transfer. Vapors are heavier than air and will collect in low areas.

**Other precautions:** Contact with aluminum parts in a pressurized fluid system may cause violent reactions.

## 8 Control Measures

**Respiratory Protection:** Vapor levels should be maintained below the listed PEL and TLV. If work place exposure limits of product (or any component) are exceeded a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. The minimum requirements for respiratory protection for methylene chloride appear in 29CFR 1910.1052(F). For emergencies use a self-contained breathing apparatus with full face piece.

**Ventilation:** Do not use in basements or in closed or confined areas. Open doors and windows. Use general or exhaust ventilation to meet TLV and PEL requirements.

**Protective Gloves:** Use Viton, Poly Vinyl Alcohol or Polyethylene lined gloves.

**Eye Protection:** Where there is reasonable probability of eye contact, wear safety goggles.

**Other Protective Clothing or Equipment:** Where prolonged or frequently repeated contact could occur use protective clothing impervious to this material. Selection of specific items, such as gloves, boots or aprons will depend upon operation.

**Work/ Hygienic Practices:** Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mist. Wash thoroughly after handling and before eating, drinking or smoking. Remove any contaminated clothing promptly and clean before reuse.

## 9 Transportation Data

DOT Proper Shipping Name: Paint Related Material

DOT Class: N/A

DOT ID Number: N/A

DOT Packaging Group: N/A

## 10 Regulatory Information

	<i>Reportable Quantity (RQ)</i>	<i>RQ Product Quantity</i>
Methylene Chloride	1,000 lbs.	1,250 lbs.
Methanol	5,000 lbs.	125,000 lbs.
Mineral Spirits	n/a	

**Toxic Substances Control Act:** All ingredients are listed or comply with TSCA Inventory.

**SARA 311/312 Hazard Categories:** Health - Immediate Health, Delayed health.

**California Proposition 65:** The State of California has listed Methylene Chloride under Proposition 65 as a chemical known to the state to cause cancer. The State of California has listed Benzene as a chemical known to the state to cause cancer and birth defects or other reproductive harm. **Warning:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

The information and recommendations contained herein have been compiled from sources believed to be accurate and reliable. The information herein is given in good faith, but no warranty, expressed or implied, is made.