

Kirby-Vass  
Insulation, Inc.

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Safety Data Sheets  
BOOK

## **Kirby-Vass Insulation, Inc.**

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P O Box 19345  
Roanoke, Va. 24019

ph. (540)992-3960  
fax (540)992-4796

263 Industrial Drive  
Hollins, Va. 24019

### **NOTICE TO EMPLOYEES:**

This book contains safety information on the products we use. Please refer to the index for help finding a particular product. There are emergency phone numbers and treatments listed in case of an accident.

This book will be provided in hard copy form for the Customers we are working for to keep in their office trailers on each jobsite.

Each employee will be issued a card with our company's phone number, fax number, and website address to access the SDS Books. Upon request of a SDS; we must have a copy of that requested sheet in hand before the end of that days shift.

You should refer to this book for information on precautions you should take. Please contact me if you feel you need anything to assure your safe working conditions.

Kirby-Vass Insulation, Inc.  
Tom Kirby

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Revision Date: 12/16/2015

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#### Manufacturer

Armacell  
Armacell  
Armacell  
Armacell  
Armacell  
HICUBE Coating  
Astech  
Accumetric, LLC  
Accumetric, LLC  
Thermal Ceramics  
Specialty Construction Brands, Inc.  
Specialty Construction Brands, Inc.  
Specialty Construction Brands, Inc.  
DriTherm International, Inc.  
Owens Corning  
Owens Corning  
MON-ECO Industries  
MON-ECO Industries  
MON-ECO Industries  
Rust-Oleum Corp.  
Rust-Oleum Corp.  
Specialty Construction Brands, Inc.  
Specialty Construction Brands, Inc.  
Knauf Insulation GmbH  
Johns Manville  
3M  
IIG  
MFM Building Products Corp.  
Pittsburgh Corning Corporation  
Nomaco, Inc.  
Specialty Construction Brands, Inc.  
Specialty Construction Brands, Inc.  
HICUBE Coating  
The Valspar Corporation

**Products****Manufacturer**

35. GREAT STUFF	The Dow Chemical Company
36. Heavy Density Pipe Insulation	Owens Corning
37. IHA-177 Adhesive	ITW TACC
38. Insul-Tube	K-Flex USA, LLC
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45. MinWool-1200 Board	Industrial Insulation Group
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# KIRBY-VASS INSULATION INC.

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PO Box 19345 Roanoke, VA 24019  
263 Industrial Drive Hollins, VA 24019

Cont. Lic. No. 2701-029433A

ph. (540) 992-3960  
fax (540) 992-4796

## **SAFETY PLAN**

It is the policy of this company to provide a safe work environment, to abide by all government regulations, to abide by all customer requirements and to practice safe work habits.

### **I. Safety Responsibility**

#### **A. Safety Officer**

1. Direct Safety Program
2. Keep employees informed of changes in regulations and practices.
3. Keep employees informed of special requirements of customers.
4. Review accidents and take corrective action.
5. Train Foremen and Superintendents

#### **B. Superintendents and Foremen**

1. Enforce Safety policy at job sites
2. Train employees.
3. Assure that safety devices are used.
4. Assure that accidents are reported properly.
5. Investigates accidents and takes corrective action

#### **C. Crew Members**

1. Work Safely
2. Follow rules and regulations
3. Use Safety Devices
4. Read Safety Data Sheets and follow instructions
5. Keep Safety Data Sheets with you at all times
6. Report possible safety problems to the safety officer or the superintendent
7. No Horseplay
8. Do not work while under the influence of Drugs or Alcohol

### **II. Safety Rules and Procedures**

#### **A. Personal Protection Equipment**

1. Hard Hats – Wear at all times
2. Safety Glasses, steel toed boots, respirators, and safety harnesses – where required by customer, regulation, and where conditions require
3. Class II Safety Vest

#### **B. Housekeeping**

1. This is the first rule of safety. Maintain a clean work area at all times.

**C. Power Tools and Hand Tools**

1. Do not use tools unless they are safe whether provided by the company or personal.
2. All safety guards, devices, and grounds shall be in place and used.
3. Remove any defective tools from the work site.
4. Inspect all tools daily

**D. Welding, Grinding, & Cutting**

1. Only employees who have welding experience shall weld unless being trained.
2. Wear eye protection.
3. Use portable band saw or chop saw for cutting—no torch.

**E. Electrical**

1. Use only three prong extension cords in good shape. 14 gauge extension cords only. Inspect cords daily.
2. Treat all electrical wires as live.
3. Report any dangling wires.

**F. Ladders**

1. Do Not Use if Damaged.
2. Over 20' up, tie off.
3. Tie down extension ladders.
4. Do not stand on top two steps of step ladders.

**G. Scaffolds**

1. Any scaffolding with a 6' work platform must have toe boards.
2. If wheels used, secure with tie wire.
3. Follow all regulations.

**H. Trenches**

1. Do not work in trenches more that 5' deep unless shored or faded back to a stable slope.

**I. Hearing Protection—When Sound Levels Exceed Permissible Levels**

1. Eliminate source of noise if possible.
2. Use ear protective devices.

**J. Fire Protection**

1. Be careful not to start a fire.
2. If a fire does start: Sound the alarm, put out, if possible; and if not possible, stand by to direct the firefighters on arrival.

**K. First Aid**

1. Treat minor injuries, but report all injuries.
2. Do not treat serious injuries. You may do more harm than good. GET HELP.

3. Control bleeding with pressure until help arrives.
4. Know where facilities are located.

**L. Emergency Procedures**

1. On each new job, make yourself aware of procedures and have a plan ready.

**M. Signs, Barricades, Flagging**

1. Obey all safety signs and flags.
2. Do not enter barricaded areas without permission.

**N. Rigging and Cranes**

1. Stay out from under.
2. Do not use as personnel hoists.
3. Be careful around power lines.
4. Do not overload
5. Use only when operated by a trained operator.

**O. Miscellaneous**

1. NEVER WORK UNDER UNSAFE CONDITIONS OR IN AN UNSAFE MANNER.
2. If working where equipment could injure you, lock it out with our lock and tag it so the operator knows you are working.
3. We should never work in a confined space. If it becomes necessary to do so, check with the office before proceeding for special instruction.
4. Do not open equipment or pipe valves unless you have permission from the customer and know that you can do so in a safe manner. Never lower more than one hanger at a time.
5. The job foreman is responsible for knowing who is present at the job site at all times. Employees shall inform him upon arrival and whenever leaving a job site. Log in if required by the customer.
6. Know emergency plans and exits for job sites.
7. Employees will be informed of any special medical problems involved with working at a job site and precautions they need to take as management becomes aware of them.

**P. Fall Protection**

1. All employees will be trained in Fall Protection in Construction by the Safety Director, Becky Montgomery or such other official as designated periodically by KVI.
2. All employees will follow Kirby-Vass & Firestop's Fall Prevention and Protection Policy.
3. Any employee that does not follow the Fall Protection Policy will be subject to a disciplinary action. (See Disciplinary Action on page 5)

**III. Employee Training**

**A. New Employee Orientation**

1. Provide with safety plan.
2. Superintendent should review policy with the new employee.
3. Foreman shall keep a close eye on new employees until they have shown that they know good work habits and are practicing them.

**B. Special Training**

1. Superintendent shall inform the foremen of any special safety problems or regulations at a particular job site. The superintendent will train the foremen.
2. The Foremen will train the crew.
3. Safety office shall assist as needed.

**C. Foreman Training**

1. Whenever an employee is put in charge of a job, the superintendent shall train him. They shall review policy.
2. The new foreman will be made aware that he is now responsible for safety on his job and he is to report any problems.

**D. Safety Meetings**

1. Safety Meetings shall be held weekly at the job site for all employees using material provided by the office.
2. Questions and concerns will also be discussed.

**IV. Vehicle Safety**

- A. Follow all laws and customer regulations.
- B. Driving record is subject to review by Kirby-Vass and our insurance carrier.
- C. Permission to drive can be refused at any time at management's discretion.

**V. Hazard Communication Program**

- A. Made a part of this safety program per enclosed copy.
- B. Employees keep a copy with them at all times.

**VI. Substance Abuse Policy**

- A. Made a part of this safety policy per enclosed copy.
- B. Information to be made available to customers as required by contractual obligations.

**VII. Accident Reporting**

- A. Accidents are to be reported to the office on the day they occur. If this is not possible because they happened while the office is closed, they shall be reported to the job site foreman who shall let the superintendent know as soon as possible.
- B. The Safety officer shall be responsible for filing an accident report with the insurance carrier within 24 hours of an accident.
- C. The superintendent shall investigate all accidents, determine the cause, and take corrective action.

- D. Accidents and job related illnesses will be recorded in the OSHA 200 Log. They shall be reviewed by management monthly, quarterly, and annually to see where improvements need to be made.
- E. Reports shall be made to customers as required.

## **SAFETY ENFORCEMENT AND DISCIPLINARY PROGRAM**

Safety is our number one goal at Kirby-Vass Insulation. Unsafe work practices will not be tolerated. If you put yourself or anyone else in danger, you are subject to:

- 1. Dismissal**
- 2. Suspension**
- 3. Removal from a job site**
- 4. Demotion**
- 5. Warnings**
- 6. Bonus Deductions**

Disciplinary action is at the discretion of management.

Kenny Smith, Bill Hurd, Mike Fox, Mike Divers as Project Managers and Greg Cundiff/Becky Montgomery as Safety Officer will supervise and enforce the safety plan. They are to be assisted by all foremen and crew members.

Revised 01/14/2015

## KIRBY-VASS INSULATION INC. *Celebrating 23 years*

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### ***Safety Plan Receipt Acknowledgement***

*I hereby acknowledge receipt of the Kirby-Vass Insulation, Inc. Safety Plan (5 pages) and agree to abide by the rules and policies in it, along with any additional job imposed safety rules, policies, and/or regulations during my employment. I fully understand that failure to work safely and to comply with any company or jobsite safety policy or any regulatory agency requirements may result in my termination.*

*I understand that as one of the requirements of my employment, that in the event I am injured while in the course of my work, I shall report such injury immediately to Kirby-Vass safety personnel and obtain the necessary treatment.*

*In case of an emergency, please notify:  
Kirby-Vass Insulation Inc.  
263 Industrial Drive  
Hollins, VA 24019  
Phone # (540) 992-3960*

\_\_\_\_\_  
*Name*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date Received*

Revised 01/14/2015

## SAFETY DATA SHEET

**Date Issued :** 08/20/2015  
**Date Revised :** 08/24/2015

### Speedline RTV Industrial Sealant

#### 1. IDENTIFICATION

**PRODUCT NAME:** SPEEDLINE RTV INDUSTRIAL SEALANT

**PRODUCT CODE:** 73-20 CLEAR, WHITE, ALUMINUM, BLACK

**MANUFACTURER OR SUPPLIER'S DETAILS**

**COMPANY NAME OF SUPPLIER:** Speedline Corporation

6810 Cochran Road

440-914-1122

**TELEPHONE:** (440) 914-1122

**EMERGENCY TELEPHONE:** Chemtel: 1(800)255-3924

**RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE**

**RECOMMENDED USE:** Adhesive, binding agents

#### 2. HAZARDS IDENTIFICATION

**GHS CLASSIFICATION:** Not a hazardous substance or mixture.

**GHS LABEL ELEMENT:** Not a hazardous substance or mixture.

**PRECAUTIONARY STATEMENTS:** Prevention: P271 Use only outdoors or in a well-ventilated area.

**OTHER HAZARDS:** None known.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**SUBSTANCE / MIXTURE:** Mixture

**CHEMICAL NATURE:** Silicone elastomer

**HAZARDOUS INGREDIENTS:**

Chemical Name	CAS-No.	Concentration (%)
Distillates (petroleum), hydrotreated middle	64742-46-7	>= 20 < 30
Silicon dioxide	7631-86-9	>= 5 < 10
Titanium dioxide	13463-67-7	>= 0.1 < 1
Carbon black	1333-86-4	>= 0.1 < 1

#### 4. FIRST AID MEASURES

**GENERAL ADVICE:** In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

**IF INHALED:** If inhaled, remove to fresh air. Get medical attention if symptoms occur.

**IN CASE OF SKIN CONTACT:** Wash with water and soap as a precaution. Get medical attention if symptoms occur.

**IN CASE OF EYE CONTACT:** Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.

**IF SWALLOWED:** If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

**MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:** None known.

**PROTECTION OF FIRST-AIDERS:** First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

**NOTES TO PHYSICIAN:** Treat symptomatically and supportively.

## SAFETY DATA SHEET

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### Speedline RTV Industrial Sealant

#### 5. FIRE-FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:** Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>)

**UNSUITABLE EXTINGUISHING MEDIA:** None known.

**SPECIFIC HAZARDS DURING FIRE FIGHTING:** Exposure to combustion products may be a hazard to health.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon oxides, Silicon oxides, Formaldehyde

**SPECIFIC EXTINGUISHING METHODS:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:** In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

#### 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

**ENVIRONMENTAL PRECAUTIONS:** Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

#### 7. HANDLING AND STORAGE

**TECHNICAL MEASURES:** See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

**LOCAL/TOTAL VENTILATION:** Use only with adequate ventilation.

**ADVICE ON SAFE HANDLING:** Do not swallow. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment.

**CONDITIONS FOR SAFE STORAGE:** Keep in properly labeled containers. Store in accordance with the particular national regulations.

**MATERIALS TO AVOID:** Do not store with the following product types: Strong oxidizing agents

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### INGREDIENTS WITH WORKPLACE CONTROL PARAMETERS

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters/ Permissible concentration	Basis
Distillates (petroleum), hydrotreated middle	64742-46-7	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL



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Silicon dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m <sup>3</sup> / %SiO <sub>2</sub> (Silica)	OSHA Z-3
		TWA	6 mg/m <sup>3</sup> (Silica)	NIOSH REL
Titanium dioxide	13463-67-7	TWA (total dust)	15 mg/m <sup>3</sup>	OSHA Z-1
		TWA	10 mg/m <sup>3</sup> (Titanium dioxide)	ACGIH
Carbon black	1333-86-4	TWA	3.5 mg/m <sup>3</sup>	NIOSH REL
		TWA	3.5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhalable fraction)	3 mg/m <sup>3</sup>	ACGIH

**ENGINEERING MEASURES:** Processing may form hazardous compounds (see Section 10). Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations.

#### PERSONAL PROTECTIVE EQUIPMENT

**RESPIRATORY PROTECTION:** General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

**HAND PROTECTION MATERIAL:** Impervious gloves

**REMARKS:** Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

**EYE PROTECTION:** Wear the following personal protective equipment: Safety glasses

**SKIN AND BODY PROTECTION:** Skin should be washed after contact.

**HYGIENE MEASURES:** Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use. These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

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### Speedline RTV Industrial Sealant

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** paste

**COLOR:** in accordance with the product description

**ODOR:** Acetic acid

**ODOR THRESHOLD:** No data available pH: Not applicable

**MELTING POINT/FREEZING POINT:** No data available

**INITIAL BOILING POINT AND BOILING RANGE:** Not applicable

**FLASH POINT:** > 100 °C. Method: closed cup

**EVAPORATION RATE:** Not applicable

**FLAMMABILITY (SOLID, GAS):** Not classified as a flammability hazard

**UPPER EXPLOSION LIMIT:** No data available Lower explosion limit: No data available Vapor pressure: Not applicable

**RELATIVE VAPOR DENSITY:** No data available

**RELATIVE DENSITY:** 0.96

**SOLUBILITY(IES)**

**WATER SOLUBILITY:** No data available

**PARTITION COEFFICIENT:** noctanol/water: No data available

**AUTOIGNITION TEMPERATURE:** No data available

**DECOMPOSITION TEMPERATURE:** No data available

**VISCOSITY**

**VISCOSITY, DYNAMIC:** 200,000 mPa.s

**EXPLOSIVE PROPERTIES:** Not explosive

**OXIDIZING PROPERTIES:** The substance or mixture is not classified as oxidizing. Molecular weight: No data available

#### 10. STABILITY AND REACTIVITY

**REACTIVITY:** Not classified as a reactivity hazard.

**CHEMICAL STABILITY:** Stable under normal conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Use at elevated temperatures may form highly hazardous compounds.

Can react with strong oxidizing agents. Acetic acid is formed upon contact with water or humid air. Hazardous decomposition products will be formed at elevated temperatures.

**CONDITIONS TO AVOID:** None known.

**INCOMPATIBLE MATERIALS:** Oxidizing agents

**HAZARDOUS DECOMPOSITION PRODUCTS**

**THERMAL DECOMPOSITION:** Formaldehyde

## SAFETY DATA SHEET

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### Speedline RTV Industrial Sealant

#### 11. TOXICOLOGICAL INFORMATION

**INFORMATION ON LIKELY ROUTES OF EXPOSURE:** Skin contact, Ingestion, Eye contact.

**ACUTE TOXICITY:** Not classified based on available information.

**PRODUCT:**

**ACUTE INHALATION TOXICITY:** Acute toxicity estimate: 8.09 mg/l. Exposure time: 4 h. Test atmosphere: dust/mist: Method: Calculation method

**INGREDIENTS:**

**DISTILLATES (PETROLEUM), HYDROTREATED MIDDLE:**

**ACUTE ORAL TOXICITY:** LD50 (Rat): > 5,000 mg/kg

**ACUTE INHALATION TOXICITY:** LC50 (Rat): 1.78 mg/l. Exposure time: 4 h. Test atmosphere: dust/mist

**ACUTE DERMAL TOXICITY:** LD50 (Rat): > 2,000 mg/kg

**SILICON DIOXIDE:**

**ACUTE ORAL TOXICITY:** LD50 (Rat): > 3,300 mg/kg. Assessment: The substance or mixture has no acute oral toxicity. Remarks: Information taken from reference works and the literature.

**ACUTE INHALATION TOXICITY:** LC50 (Rat): > 2.08 mg/l. Exposure time: 4 h. Test atmosphere: dust/mist. Assessment: The substance or mixture has no acute inhalation toxicity. Remarks: Information taken from reference works and the literature.

**ACUTE DERMAL TOXICITY:** LD50 (Rabbit): > 5,000 mg/kg. Assessment: The substance or mixture has no acute dermal toxicity. Remarks: Information taken from reference works and the literature.

**TITANIUM DIOXIDE:**

**ACUTE ORAL TOXICITY:** LD50 (Rat): > 5,000 mg/kg

**ACUTE INHALATION TOXICITY:** LC50 (Rat): > 6.82 mg/l. Exposure time: 4 h. Test atmosphere: dust/mist. Assessment: The substance or mixture has no acute inhalation toxicity

**CARBON BLACK:**

**ACUTE ORAL TOXICITY:** LD50 (Rat): > 5,000 mg/kg

**ACUTE INHALATION TOXICITY:** LC50 (Rat): > 0.0046 mg/l. Exposure time: 4 h. Test atmosphere: dust/mist. Assessment: The substance or mixture has no acute inhalation toxicity

**SKIN CORROSION/IRRITATION:** Not classified based on available information.

**INGREDIENTS:**

**SILICON DIOXIDE:**

**RESULT:** No skin irritation

**REMARKS:** Information taken from reference works and the literature.

**TITANIUM DIOXIDE:**

**SPECIES:** Rabbit

**RESULT:** No skin irritation

**CARBON BLACK:**

**SPECIES:** Rabbit

**RESULT:** No skin irritation

**SERIOUS EYE DAMAGE/EYE IRRITATION:** Not classified based on available information.

**INGREDIENTS:**

**SILICON DIOXIDE:**

**RESULT:** No eye irritation

**REMARKS:** Information taken from reference works and the literature.

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**TITANIUM DIOXIDE:**

**SPECIES:** Rabbit

**RESULT:** No eye irritation

**CARBON BLACK:**

**SPECIES:** Rabbit

**RESULT:** No eye irritation

**RESPIRATORY OR SKIN SENSITIZATION:** Skin sensitization: Not classified based on available information.  
Respiratory sensitization: Not classified based on available information.

**INGREDIENTS:****SILICON DIOXIDE:**

**ASSESSMENT:** Does not cause skin sensitization.

**TEST TYPE:** Skin: test type not specified

**SPECIES:** Guinea pig

**REMARKS:** No known sensitising effect.

Information taken from reference works and the literature.

**TITANIUM DIOXIDE:**

**TEST TYPE:** Local lymph node assay (LLNA) Routes of exposure: Skin contact

**SPECIES:** Mouse

**RESULT:** negative

**CARBON BLACK:**

**TEST TYPE:** Buehler Test

**ROUTES OF EXPOSURE:** Skin contact

**SPECIES:** Guinea pig

**METHOD:** OECD Test Guideline 406

**RESULT:** negative

**GERM CELL MUTAGENICITY:** Not classified based on available information.

**INGREDIENTS:****SILICON DIOXIDE:**

**GENOTOXICITY IN VITRO:** Result: negative. Remarks: Information taken from reference works and the literature.

**GENOTOXICITY IN VIVO:** Application Route: Ingestion. Result: negative. Remarks: Information taken from reference works and the literature.

**GERM CELL MUTAGENICITY ASSESSMENT:** Animal testing did not show any mutagenic effects.

**TITANIUM DIOXIDE:**

**GENOTOXICITY IN VITRO:** Test Type: Bacterial reverse mutation assay (AMES) Result: negative

**GENOTOXICITY IN VIVO:** Test Type: In vivo micronucleus test

**SPECIES:** Mouse

**RESULT:** negative

**CARBON BLACK:**

**GENOTOXICITY IN VITRO:** Test Type: Bacterial reverse mutation assay (AMES) Result: negative

**CARCINOGENICITY:** Not classified based on available information.

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### Speedline RTV Industrial Sealant

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#### INGREDIENTS:

##### TITANIUM DIOXIDE:

**SPECIES:** Rat

**APPLICATION ROUTE:** Inhalation (dust/mist/fume) Exposure time: 24 Months

**METHOD:** OECD Test Guideline 453

**RESULT:** positive

**REMARKS:** The mechanism or mode of action may not be relevant in humans. The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

**CARCINOGENICITY ASSESSMENT:** Limited evidence of carcinogenicity in inhalation studies with animals.

##### CARBON BLACK:

**SPECIES:** Rat

**APPLICATION ROUTE:** Inhalation Exposure time: 2 Years Result: positive

**TARGET ORGANS:** Lungs

**REMARKS:** The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

**CARCINOGENICITY ASSESSMENT:** Sufficient evidence of carcinogenicity in inhalation studies with animals

**IARC:** Group 2B: Possibly carcinogenic to humans. Titanium dioxide 13463-67-7. Carbon black 1333-86-4

**OSHA:** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP:** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**REPRODUCTIVE TOXICITY:** Not classified based on available information.

**STOT-SINGLE EXPOSURE:** Not classified based on available information.

**STOT-REPEATED EXPOSURE:** Not classified based on available information.

#### INGREDIENTS:

##### CARBON BLACK:

**ROUTES OF EXPOSURE:** inhalation (dust/mist/fume)

**ASSESSMENT:** No significant health effects observed in animals at concentrations of 0.2 mg/l/6h/d or less.

**REPEATED DOSE TOXICITY**

#### INGREDIENTS:

##### TITANIUM DIOXIDE:

**SPECIES:** Rat

**NOAEL:** 24,000 mg/kg Application Route: Ingestion Exposure time: 28 d

**SPECIES:** Rat

**NOAEL:** 10 mg/m<sup>3</sup>

**APPLICATION ROUTE:** inhalation (dust/mist/fume) Exposure time: 2 y

**REMARKS:** The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

**CARBON BLACK:** Species: Rat NOAEL: 1 mg/m<sup>3</sup>

**LOAEL:** 7 mg/m<sup>3</sup>

**APPLICATION ROUTE:** Inhalation Test atmosphere: dust/mist Exposure time: 90 d

## SAFETY DATA SHEET

**Date Issued :** 08/20/2015  
**Date Revised :** 08/24/2015

### Speedline RTV Industrial Sealant

**REMARKS:** The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

**ASPIRATION TOXICITY:** Not classified based on available information.

**INGREDIENTS:**

**DISTILLATES (PETROLEUM), HYDROTREATED MIDDLE:** The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

## 12. ECOLOGICAL INFORMATION

### ECOTOXICITY

**INGREDIENTS:**

**TITANIUM DIOXIDE:**

**TOXICITY TO FISH:** LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l. Exposure time: 96 h. Method: OECD Test Guideline 203

**TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES:** EC50 (Daphnia magna (Water flea)): > 100 mg/l. Exposure time: 48 h

**TOXICITY TO ALGAE:** EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l. Exposure time: 72 h. Toxicity to bacteria: EC50: > 1,000 mg/l. Exposure time: 3 h. Method: OECD Test Guideline 209

**CARBON BLACK:**

**TOXICITY TO FISH:** LC0 (Danio rerio (zebra fish)): 1,000 mg/l. Exposure time: 96 h. Method: OECD Test Guideline 203

**TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES:** EC50 (Daphnia magna (Water flea)): > 5,600 mg/l. Exposure time: 24 h. Method: OECD Test Guideline 202

**TOXICITY TO ALGAE:** NOEC (Desmodesmus subspicatus (green algae)): 10,000 mg/l. Exposure time: 72 h. Method: OECD Test Guideline 201

**PERSISTENCE AND DEGRADABILITY:** No data available

**BIOACCUMULATIVE POTENTIAL:** No data available

**MOBILITY IN SOIL:** No data available

**OTHER ADVERSE EFFECTS:** No data available

## 13. DISPOSAL CONSIDERATIONS

### DISPOSAL METHODS

**RESOURCE CONSERVATION AND RECOVERY ACT (RCRA):** This product has been evaluated for RCRA characteristics and does not meet the criteria of hazardous waste if discarded in its purchased form.

**WASTE FROM RESIDUES:** Dispose of in accordance with local regulations.

**CONTAMINATED PACKAGING:** Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## SAFETY DATA SHEET

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### Speedline RTV Industrial Sealant

#### 14. TRANSPORT INFORMATION

##### INTERNATIONAL REGULATION

**UNRTDG:** Not regulated as a dangerous good

**IATA-DGR:** Not regulated as a dangerous good

**IMDG-CODE:** Not regulated as a dangerous good.

**TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:** Not applicable for product as supplied.

##### DOMESTIC REGULATION

**49 CFR:** Not regulated as a dangerous good

#### 15. REGULATORY INFORMATION

##### EPCRA EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW

##### CERCLA REPORTABLE QUANTITY

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Acetic acid	64-19-7	5000	*
Acetic anhydride	108-24-7	5000	*

\* Calculated RQ exceeds reasonably attainable upper limit.

##### SARA 304 EXTREMELY HAZARDOUS SUBSTANCES REPORTABLE QUANTITY

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
10,10-Oxydiphenoxarsine	58-36-6	500	*

\* Calculated RQ exceeds reasonably attainable upper limit.

**SARA 311/312 HAZARDS:** No SARA Hazards

**SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### US STATE REGULATIONS

##### PENNSYLVANIA RIGHT TO KNOW

Dimethyl siloxane, hydroxy-terminated	70131-67-8	50-70 %
Distillates (petroleum), hydrotreated middle	64742-46-7	20-30 %
Silicon dioxide	7631-86-9	5-10 %
Aluminium	7429-90-5	0-0.1 %
Acetic acid	64-19-7	0-0.1 %
Acetic anhydride	108-24-7	0-0.1 %

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### Speedline RTV Industrial Sealant

#### NEW JERSEY RIGHT TO KNOW

Dimethyl siloxane, hydroxy-terminated	70131-67-8	50-70 %
Distillates (petroleum), hydrotreated middle	64742-46-7	20-30 %
Silicon dioxide	7631-86-9	5-10 %
Carbon black	1333-86-4	0.1-1 %

**CALIFORNIA PROP 65:** WARNING! This product contains a chemical known in the State of California to cause cancer. Cobalt titanite green spinel 68186-85-6

#### THE INGREDIENTS OF THIS PRODUCT ARE REPORTED IN THE FOLLOWING INVENTORIES:

**IECSC:** All ingredients listed or exempt.

**DSL:** This product contains one or more substances which are not on the Canadian Domestic Substances List (DSL). Import of this product into Canada has volume limitations. For volume limits please consult Dow Corning Regulatory Compliance.

**REACH:** Consult your local Dow Corning office.

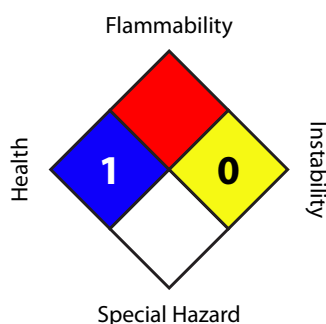
**TSCA:** All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

**INVENTORIES:** AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), NECSI (Taiwan), TSCA (USA)

### 16. OTHER INFORMATION

#### FURTHER INFORMATION

##### NFPA:



##### HMIS III:

<b>HEALTH</b>	<b>1</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

#### FULL TEXT OF OTHER ABBREVIATIONS

**ACGIH:** USA. ACGIH Threshold Limit Values (TLV) NIOSH REL: USA. NIOSH Recommended Exposure Limits

**OSHA P0:** USA. OSHA TABLE Z-1 Limits for Air Contaminants -

**1910.1000**

**OSHA Z-1:** USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants

**OSHA Z-3:** USA. Occupational Exposure Limits (OSHA) Table Z-3 Mineral Dusts

**ACGIH / TWA:** 8-hour, time-weighted average

**NIOSH REL / TWA:** Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek

**NIOSH REL / ST:** STEL 15-minute TWA exposure that should not be exceeded at any time during a workday

**OSHA P0 / TWA:** 8-hour time weighted average OSHA Z-1 / TWA: 8-hour time weighted average OSHA Z-3 / TWA: 8-hour time weighted average



## SAFETY DATA SHEET

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### Speedline RTV Industrial Sealant

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**SOURCES OF KEY DATA USED TO COMPILE THE MATERIAL SAFETY DATA SHEET:** Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

**REVISION DATE:** 02/12/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

## SAFETY DATA SHEET

with reference to OSHA Hazard Communication Standard (HCS)  
published in Federal Register 77 FR 17574 - March 2012

### Armacell Products

revised 12/19/2013, replaces version 05/2013

STATUS: 12/19/2013

PAGE: 1 (of 4)

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

PRODUCT NAME	ArmaTuff Products: Including ArmaTuff Sheets and Rolls with and without pressure sensitive adhesive backing.
USE OF THE PRODUCT	<p>This product is classified as an "article" according to Title 29 of the Code of Federal Regulations, OSHA Part 1910.1200©, page 463.</p> <p>"Article means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g. minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees."</p>
MANUFACTURER /DISTRIBUTOR	<p>Armacell LLC 7600 Oakwood Street Extension Mebane, NC 27302 Tel: +1-919-304-3846 www.armacell.com</p> <p><b>Technical contact point:</b> Michael Resetar Technical Manager Insulation Products Division Tel: +1-919-304-8908 Fax: +1-919-304-8964 michael.j.resetar@armacell.com</p>
EMERGENCY INFORMATION	<p>Armacell LLC 7600 Oakwood Street Extension Mebane, NC 27302 Tel: +1-919-304-3846 www.armacell.com</p>

#### 2. HAZARDS IDENTIFICATION

HAZARD DESIGNATION	None
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#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

DESCRIPTION	<p>Expanded, Closed-cell or Semi open cell foams containing Polyvinyl Chloride/ Nitrile-Butadiene Rubber (PVC/NBR) with a polymeric blend laminated top surface. Available in rolls, sheets with and without PSA at various dimensions</p> <ul style="list-style-type: none"><li>• Nitrile-butadiene rubber and PVC (NBR/PVC)</li></ul>
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## SAFETY DATA SHEET

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#### 4. FIRST-AID MEASURES

IN CASE OF INHALATION	Not applicable
IN CASE OF SKIN CONTACT	Not applicable
IN CASE OF EYE CONTACT	Not applicable
IN CASE OF INGESTION	Not applicable

#### 5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA Unrestricted

**SPECIAL EXPOSURE HAZARDS ARISING FROM THE PREPARATION** Fire gases, do not breathe. Emits toxic fumes under fire conditions because of incomplete incineration. In the case of fire wear self-contained breathing apparatus.

#### 6. ACCIDENTAL RELEASE MEASURE

PERSONAL PRECAUTIONS	Not applicable
ENVIRONMENTAL PRECAUTIONS	Not applicable
METHODS FOR CLEANING UP / TAKING UP	Take up mechanically.

#### 7. HANDLING AND STORAGE

HINTS FOR SAFE HANDLING	None
HINTS FOR PROTECTION AGAINST FIRE AND EXPLOSION	None
HINTS FOR SEPARATION OF INCOMPATIBLE PRODUCTS	None
FURTHER INFORMATION ON STORAGE CONDITIONS	Can be stored in clean, dry rooms under normal conditions with respect to humidity (50 - 70 %) and surrounding temperature of 32 °F – 95 °F (0 °C - 35 °C).

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

GENERAL HEALTH MEASURES Not applicable

## SAFETY DATA SHEET

with reference to OSHA Hazard Communication Standard (HCS)  
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RESPIRATORY PROTECTION Not applicable

HAND PROTECTION Not applicable

EYE PROTECTION Not applicable

### 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Sheets, Rolls with and without PSA

COLOR Black foam and white laminate top

ODOR Characteristic

MELTING POINT Not applicable

BOILING POINT Not applicable

LOWER EXPLOSION LIMIT Not applicable

UPPER EXPLOSION LIMIT Not applicable

DENSITY AT 73 °F (23 °C) 2.5 – 6 lb./ ft<sup>3</sup> (40 – 96 kg./ m<sup>3</sup>)

WATER SOLUBILITY 73 °F (23 °C) Insoluble

### 10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID Avoid open flames.

HAZARDOUS REACTION No dangerous reactions known.

HAZARDOUS DECOMPOSITION  
PRODUCTS No decomposition if used as prescribed.

### 11. TOXICOLOGICAL INFORMATION

EXPERIENCE MADE IN PRACTICE When used and handled according to specification, the product does not have any harmful effect according to our experience and knowledge.

## SAFETY DATA SHEET

with reference to OSHA Hazard Communication Standard (HCS)  
published in Federal Register 77 FR 17574 - March 2012

### Armacell Products

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#### 12. ECOLOGICAL INFORMATION

##### ADDITIONAL ECOLOGICAL INFORMATION

The product is classified non-hazardous to waters.

#### 13. DISPOSAL CONSIDERATIONS

##### DISPOSAL PRODUCT

Dispose waste according to applicable local, state and federal regulations.

#### 14. TRANSPORT INFORMATION

No hazardous material as defined by the transport regulations (ADR/RID, IMDG-Code, ICAO-TI/IATA-DGR).

#### 15. REGULATORY INFORMATION

This product does not require labelling in terms of REACH regulation (EC) 1907/2006

#### 16. OTHER INFORMATION

The data in this safety data sheet describe the safety requirements of our product based on our current level of knowledge and may not be considered to guarantee any product properties and it is sufficient for **United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS) standard**. However, we have no knowledge of or control over the working conditions. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

## SAFETY DATA SHEET

### SECTION 1 – IDENTIFICATION

Manufacturer's name and address:

Supplier's name and address:



Refer to Manufacturer

Armacell LLC  
P.O. Box 839  
7600 Oakwood Street Extension  
Mebane, NC 27302  
USA

Information Telephone No. : (919) 304-3846  
Website Address : <http://www.armacell.us>  
24 Hr Emergency Telephone # : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)  
Product Identifier : **Armaflex® 520 Adhesive**  
Chemical Name : N/Ap Chemical Family : Mixture  
Chemical Formula : N/Ap Trade Name/Synonyms : Armaflex 520  
Molecular Weight : N/Ap Material Use : Solvent dispersed synthetic rubber and resin adhesive.  
Uses Advised Against : No information available.  
HMIS Rating : \* - Chronic Hazard 0 - Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe  
*Health: \*2 Flammability 3 Reactivity 0*

### SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification per 29 CFR 1910.1200 (OSHA HCS 2012) and HPR (WHMIS 2015)

Flammable liquids; Category 2  
Skin corrosion/irritation; Category 2  
Serious eye damage/eye irritation; Category 2A  
Reproductive toxicity; Category 2  
Specific target organ toxicity, single exposure; Narcotic effects; Category 3  
Sensitization, Skin; Category 1  
Specific target organ toxicity, repeated exposure; Category 2  
Aspiration hazard; Category 1

GHS Pictograms



Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapor.  
Causes skin irritation.  
Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child via inhalation.  
May cause drowsiness or dizziness.  
May cause an allergic skin reaction.  
May be fatal if swallowed and enters airways.  
May cause damage to organs <Central Nervous System, Peripheral Nervous System, Auditory System, and Eyes> through prolonged or repeated exposure.

## Precautionary Statements

Obtain special instructions before use. (See Section 7.) Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../equipment. Use only non-sparking tools. Take precautionary measures against static discharge. In case of fire: Use fire extinguishers suitable for Classes B, C, or E for extinction. Do not breathe vapors. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection. Wash hands and exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

## Hazards Not Otherwise Classified

Vapor may cause flash fire! May be an aspiration hazard. Aspiration may occur during swallowing or vomiting, resulting in lung injury. In case of ingestion, do not induce vomiting.

**% With Unknown Acute Toxicity** : 5% by weight of this product is comprised of ingredients with unknown acute toxicity.

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (by weight)
Acetone	67-64-1	30.00 – 60.00
Hexanes	110-54-3	10.00 – 30.00
Toluene	108-88-3	10.00 – 30.00
p-tert-Butylphenol formaldehyde resin	25085-50-1	5.00 – 10.00

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

## SECTION 4 – FIRST AID MEASURES

- General** : IF exposed or concerned: Get medical advice/attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: call a doctor/physician.
- Skin contact** : Remove/Take off immediately all contaminated clothing. Flush affected skin with gently flowing lukewarm water for at least 20 minutes. Seek immediate medical attention/advice.
- Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- Ingestion** : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
- Notes for Physician** : Treat symptomatically.
- Signs and symptoms of short-term (acute) exposure**
- Inhalation* : May cause irritation to the nose, throat, and respiratory tract. Inhalation of high concentrations may cause CNS effects such as nausea, headache, dizziness, fatigue, unconsciousness, and coma. May cause motor incoordination and speech abnormalities. Breathing high concentrations of this material, for example in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.
- Skin* : May cause moderate skin irritation. Product may be absorbed through the skin, producing effects similar to inhalation or ingestion. Allergic skin reaction (non-

- photo-induced): Symptoms may include redness, swelling, blistering, and itching.
- Eyes* : Direct contact will cause moderate to severe irritation to the eyes. Symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
- Ingestion* : May cause irritation to the mouth, throat, and stomach. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea. This material can get into the lungs (aspiration) during swallowing or vomiting. Small amounts in the lungs can cause chemical pneumonitis, possibly leading to chronic lung dysfunction or death.

**Effects of long-term (chronic) exposure**

- : Chronic exposure may cause drying, cracking, and defatting of the skin. Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction. Prolonged occupational overexposure to solvents may cause irreversible brain and nervous system damage (sometimes referred to as "Solvent or Painter's Syndrome"). Intentional misuse by intentionally concentrating and inhaling the vapors from this product may be harmful or fatal. Toluene, a component of this product, may cause harm to the human fetus, based on tests with laboratory animals. Long term overexposure to Toluene has been associated with peripheral neuropathy (damage to the nerves of the hands and feet), liver effects, kidney effects, impaired color vision and hearing damage.

**Indication of need for immediate medical attention or special treatment**

- : Difficulty breathing persists after removing the person to fresh air.  
Any exposure to the eye which causes irritation.  
Ingestion.

## SECTION 5 – FIRE FIGHTING MEASURES

- Suitable extinguishing media** : Carbon dioxide, dry chemical powder, appropriate foam or water fog.
- Unsuitable extinguishing media** : water jet
- Hazardous combustion products** : Carbon oxides; Hydrocarbons; Aldehydes; Hydrogen chloride gas; other unidentified organic compounds.

**Special fire-fighting procedures/equipment**

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.

- Environmental precautions** : Do not allow material to enter drains or contaminate ground water system.

**Fire hazards/conditions of flammability**

- : Highly flammable liquid. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapors may be heavier than air and may collect in confined and low-lying areas. Vapor can travel considerable distance and flashback to a source of ignition. Material will float on water and can be re-ignited at the water's surface. Static discharge may ignite this product's vapors.

**Flammability classification (OSHA 29 CFR 1910.1200 and WHMIS 2015)**

- : Flammable Liquid, Category 2.

**Flammability classification (NFPA)**

- : Flammable Liquid Class 1B.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Restrict access to area until completion of clean-up. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Refer to Section 8 on this Safety Data Sheet, EXPOSURE CONTROLS /



- PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.
- Environmental precautions** : Do not allow product to enter waterways. Do not allow material to contaminate ground water system.
- Spill response / clean-up** : Ventilate area of release. Eliminate all ignition sources. Stop spill or leak at source if safely possible. Use non-sparking tools to contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g., sand), then place absorbent material into a container for later disposal (see Section 13.) Do not flush into surface water or sanitary sewer system. Notify the appropriate authorities as required.
- Incompatible materials** : See Section 10.
- Special spill response procedures** : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).
- US CERCLA Reportable quantity (RQ): Hexane (5000 lbs / 2270 kg); Acetone (5000 lbs / 2270 kg); Toluene (1000 lbs / 454 kg).

## SECTION 7 – HANDLING AND STORAGE

- Special Instructions** : HIGHLY FLAMMABLE LIQUID AND VAPOR. May cause flash fire. Keep away from fire, sources of heat, or sources of electrical discharges. Aspiration Hazard – may enter lungs and cause damage. If ingested, do not induce vomiting. Inhaling fumes may cause dizziness, drowsiness, nausea, headaches, and/or other Central Nervous System (CNS) symptoms. Contains a material that may cause peripheral nervous system damage. Breathing high concentrations can cause irregular heartbeats which may be fatal. Developmental hazard - Contains Toluene, which may cause birth defects or other reproductive harm. Avoid breathing vapors.
- Safe handling procedures** : Wear chemically resistant protective equipment during handling. Use in a well-ventilated area. Training the workers on the potential health hazards associated with product vapor is important. Do not breathe vapors. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from oxidizing materials. Keep containers tightly closed when not in use. Wash hands and exposed skin thoroughly after handling. Containers of this material may be hazardous when empty, since they retain product residues (vapors, liquid).
- Storage requirements** : Store in a cool, dry, well-ventilated area. No smoking in the area. Do not store near any incompatible materials (see Section 10). Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Protect against physical damage.
- Incompatible materials** : See Section 10.
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Permissible exposure levels** : No exposure limits have been established for the product itself. Below are exposure limits for the components in the product.

Ingredients	CAS #	ACGIH TLV		OSHA PEL	
		TWA	STEL	PEL	STEL
Acetone	67-64-1	500 ppm	750 ppm	1000 ppm TWA 2400 mg/m <sup>3</sup> TWA	N/Av
Hexanes	110-54-3	50 ppm	N/Av	500 ppm 1800 mg/m <sup>3</sup>	N/Av
Toluene	108-88-3	20 ppm	N/Av	200 ppm	300 ppm (10 min)

p-tert-Butylphenol formaldehyde resin	25085-50-1	N/Av	N/Av	N/Av	N/Av
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#### Ventilation and engineering measures

: Use with adequate ventilation. Provide adequate cross air circulation. Use explosion-proof general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

#### Respiratory protection

: Respiratory protection is required if the concentrations exceed the TLV. If the TLV is exceeded, wear a NIOSH/MSHA-approved organic vapor respirator.

#### Skin protection

: Impervious gloves must be worn when using this product. Glove materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended. Advice should be sought from glove suppliers regarding the glove's breakthrough time for the ingredients listed in Section 3.

#### Eye / face protection

: Chemical goggles are recommended. A full face shield may also be necessary.

#### Other protective equipment

: Full chemical-resistant protective clothing should be used whenever splashing is anticipated. An eyewash station and safety shower should be made available in the immediate working area.

#### General hygiene considerations

: Avoid contact with eyes, skin and clothing. Do not breathe vapors. Do not eat, drink or smoke when using this product. Clean all equipment and clothing, and shower with mild soap and water at end of each work shift.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	: liquid	<b>Appearance</b>	: yellow liquid.
<b>Odor</b>	: Characteristic solvent odor		
<b>Odor threshold</b>	: N/Av	<b>pH</b>	: N/Av
<b>Specific gravity</b>	: approx. 0.83	<b>Boiling point</b>	: > 133°F (>56.5°C)
<b>Coefficient of water/oil distribution</b>	: N/Av	<b>Melting/Freezing point</b>	: N/Av
<b>Solubility in water</b>	: negligible	<b>Vapor pressure (mm Hg @ 20°C / 68°F)</b>	: 180
<b>Evaporation rate (n-Butyl acetate = 1)</b>	: N/Av	<b>Vapor density (Air = 1)</b>	: N/Av
<b>Volatiles (% by weight)</b>	: 80 – 82	<b>General information</b>	: N/Av
<b>Volatile organic compounds (VOCs)</b>	: 615 g/L (Calculated, SCAQMD Rule 1168)		
<b>Particle size</b>	: N/Av	<b>Flammability classification (GHS)</b>	: Flammable Liquid Cat. 2
<b>Flash point</b>	: -15°F (-26°C)	<b>Lower flammable limit (% by vol)</b>	: Not available
<b>Flash point method</b>	: Setflash closed	<b>Upper flammable limit (% by vol)</b>	: Not available
<b>Auto-ignition temperature</b>	: N/Av	<b>Decomposition temperature</b>	: Not available
<b>Viscosity</b>	: Not available	<b>Oxidizing properties</b>	: Not available
<b>Explosion data: Sensitivity to mechanical impact / static discharge</b>			
	: Not expected to be sensitive to mechanical impact. Static discharge could ignite the vapors of this product.		

## SECTION 10 – REACTIVITY AND STABILITY INFORMATION

<b>Stability and reactivity</b>	: Stable under the recommended storage and handling conditions prescribed.
<b>Hazardous polymerization</b>	: Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	: Keep this product away from heat, sparks, flame, and other sources of ignition (e.g., pilot lights, electric motors, static electricity).
<b>Materials to avoid and incompatibility</b>	: Strong oxidizing agents; Reducing agents; Acids, Bases.
<b>Hazardous decomposition products</b>	: None known, refer to hazardous combustion products in Section 5.

## SECTION 11 – TOXICOLOGICAL INFORMATION

**Target organs** : Central Nervous System (CNS); Eyes; Skin; Kidneys; Lungs; Liver; Heart.  
**Routes of Exposure** : *Inhalation*: YES *Skin Absorption*: YES *Skin and Eyes*: YES *Ingestion*: YES  
**Toxicological data** : See below for individual ingredient acute toxicity data.

Ingredients		LC50 (4 hr) Inhalation, rat, mg/L	LD50	
			Oral, rat, mg/kg	Dermal, rabbit, mg/kg
Acetone	67-64-1	50.1	5800	20000
Hexane	110-54-3	31.86	16000	> 2000
Toluene	108-88-3	12.5	636	8390
p-tert-Butylphenol formaldehyde resin	25085-50-1	N/Av	N/Av	N/Av

#### Calculated Acute Toxicity Estimates for the Product

*Inhalation* : > 25 mg/L  
*Oral* : > 2000 mg/kg  
*Dermal* : > 4000 mg/kg

**Carcinogenic status** : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.  
**Reproductive effects** : Contains Toluene. Toluene may cause fetotoxic effects at doses which are not maternally toxic, based on animal data.  
**Germ Cell Mutagenicity** : None known.  
**Epidemiology** : Not available.  
**Sensitization to material** : This product contains a component known to cause allergic skin sensitization reactions.  
**Synergistic materials** : N/Av  
**Irritancy** : Severe eye irritant. Moderate irritant for respiratory system and skin.  
**Other important hazards** : See Section 2 for additional information.

## SECTION 12 – ECOLOGICAL INFORMATION

**Environmental effects** : The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

#### Important environmental characteristics



**Ecotoxicological** : No data is available on the product itself.  
**Ecotoxicity** : No data available.  
**Biodegradability** : No data available.  
**Bioaccumulative potential** : No data available.  
**Mobility in soil** : No data available.  
**PBT and vPvB assessment** : No data available.  
**Other adverse effects** : No data available.

## SECTION 13 – DISPOSAL CONSIDERATION

**Handling for disposal** : Handle waste according to recommendations in Section 7. Empty containers retain residue (liquid and/or vapor) and can be dangerous. Do not cut, weld, drill or grind on or near this container.  
**Methods of disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.  
**RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste

identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

## SECTION 14 – TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	UN 1133	ADHESIVES containing flammable liquid (Acetone, Hexane)	3	II	
TDG Additional Information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to TDG Part 1: 1.11, 1.17, 1.33; and Schedule 1.				
49 CFR/DOT	UN 1133	ADHESIVES containing flammable liquid (Acetone, Hexane)	3	II	
49 CFR/DOT Additional Information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to 49 CFR 173.150(b) and Special Provision 149.				

## SECTION 15 – REGULATORY INFORMATION

### Canadian Information:

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR). This SDS contains all of the information required by the HPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

### US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): Hexane (5000 lbs / 2270 kg); Acetone (5000 lbs / 2270 kg); Toluene (1000 lbs / 454 kg).

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes:

- Fire hazard
- Acute hazard
- Chronic hazard.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above de minimus concentrations. This product contains: Hexane; Toluene.

### U.S. State Right To Know Laws

California Proposition 65: Warning! This product contains a chemical known to the State of California to cause developmental harm. This product contains: Toluene.

Other State Right to Know Laws:

On State RTK List?	CAS No.	CA	MA	MN	NJ	NY	PA	RI
Acetone	67-64-1	YES	YES	YES	YES	YES	YES	YES
Hexane	110-54-3	YES	YES	YES	YES	YES	YES	YES
Toluene	108-88-3	YES	YES	YES	YES	YES	YES	YES

## SECTION 16 – OTHER INFORMATION

**HMIS Rating**

: \* - Chronic Hazard 0 - Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe  
*Health: \*2 Flammability 3 Physical Hazard: 0*

**Legend**

: ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Services  
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
CFR: Code of Federal Regulations  
CNS: Central Nervous System  
DOT: Department of Transportation  
DSL: Domestic Substances List  
EPA: Environmental Protection Agency  
GHS: Globally Harmonized System  
IARC: International Agency for Research on Cancer  
Inh: Inhalation  
N/Av: Not Available  
N/Ap: Not Applicable  
NIOSH: National Institute of Occupational Safety and Health  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible exposure limit  
RCRA: Resource Conservation and Recovery Act  
SARA: Superfund Amendments and Reauthorization Act  
STEL: Short Term Exposure Limit  
TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
TLV: Threshold Limit Values  
TSCA: Toxic Substance Control Act  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Identification System

**Disclaimer of Liability**

The Information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

No warranty of any kind is given or implied. Armacell LLC will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein. This Safety Data Sheet is valid for three (3) years.

**Prepared By:**

Armacell LLC  
P.O. Box 839  
7600 Oakwood Street Extension  
Mebane, NC, U.S.A.  
27302

(919) 304-3846  
Visit our Website at

: <http://www.armacell.us>

**Revision date:**

: 10-May 2015

**End of Document**

## SAFETY DATA SHEET

### SECTION 1 – IDENTIFICATION

Manufacturer's name and address:

Supplier's name and address:



Refer to Manufacturer

Armacell LLC

P.O. Box 839  
7600 Oakwood Street Extension  
Mebane, NC 27302  
USA

Information Telephone No. : (919) 304-3846  
Website Address : <http://www.armacell.us>  
24 Hr Emergency Telephone # : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)  
Product Identifier : **Armaflex® 520 Black Adhesive**  
Chemical Name : N/Ap Chemical Family : Mixture  
Chemical Formula : N/Ap Trade Name/Synonyms : Armaflex 520 Black  
Molecular Weight : N/Ap Material Use : Solvent dispersed synthetic rubber and resin adhesive.

HMIS Rating : \* - Chronic Hazard 0 - Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe  
Health: \*2 Flammability 3 Physical Hazard: 0

### SECTION 2 – HAZARDS IDENTIFICATION

#### GHS Classification per 29CFR 1910 (OSHA Hazard Communication Standard)

Flammable liquids; Category 2  
Skin corrosion/irritation; Category 2  
Serious eye damage/eye irritation; Category 2A  
Reproductive toxicity; Category 2  
Specific target organ toxicity, single exposure; Narcotic effects; Category 3  
Sensitization, Skin; Category 1  
Specific target organ toxicity, repeated exposure; Category 2  
Aspiration hazard; Category 1

#### WHMIS Classification

Class B2 — Flammable Liquid;  
Class D2A (Materials Causing Other Toxic Effects, Very Toxic Material);  
Class D2B (Materials Causing Other Toxic Effects, Toxic Material).

#### GHS Pictograms



#### Signal Word

Danger

#### Hazard Statements

Highly flammable liquid and vapor.  
Causes skin irritation.  
Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child via inhalation.  
May cause drowsiness or dizziness.

May cause an allergic skin reaction.  
May be fatal if swallowed and enters airways.  
May cause damage to organs <Central Nervous System, Peripheral Nervous System, Auditory System, and Eyes> through prolonged or repeated exposure.

### Precautionary Statements

Obtain special instructions before use. (See Section 7.) Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../equipment. Use only non-sparking tools. Take precautionary measures against static discharge. In case of fire: Use fire extinguishers suitable for Classes B, C, or E for extinction. Do not breathe vapors. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection. Wash hands and exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

### Hazards Not Otherwise Classified

Vapor may cause flash fire! May be an aspiration hazard. Aspiration may occur during swallowing or vomiting, resulting in lung injury. In case of ingestion, do not induce vomiting.

**% With Unknown Acute Toxicity** : 5% by weight of this product is comprised of ingredients with unknown acute toxicity.

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (by weight)
Acetone	67-64-1	30.00 – 60.00
Hexanes	110-54-3	10.00 – 30.00
Toluene	108-88-3	10.00 – 30.00
p-tert-Butylphenol formaldehyde resin	25085-50-1	5.00 – 10.00

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

## SECTION 4 – FIRST AID MEASURES

**General** : IF exposed or concerned: Get medical advice/attention.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: call a doctor/physician.

**Skin contact** : Remove/Take off immediately all contaminated clothing. Flush affected skin with gently flowing lukewarm water for at least 20 minutes. Seek immediate medical attention/advice.

**Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

**Ingestion** : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

**Notes for Physician** : Treat symptomatically.

**Signs and symptoms of short-term (acute) exposure**

*Inhalation* : May cause irritation to the nose, throat, and respiratory tract. Inhalation of high concentrations may cause CNS effects such as nausea, headache, dizziness, fatigue, unconsciousness, and coma. May cause motor incoordination and

- speech abnormalities. Breathing high concentrations of this material, for example in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.
- Skin* : May cause moderate skin irritation. Product may be absorbed through the skin, producing effects similar to inhalation or ingestion. Allergic skin reaction (non-photo-induced): Symptoms may include redness, swelling, blistering, and itching.
- Eyes* : Direct contact will cause moderate to severe irritation to the eyes. Symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
- Ingestion* : May cause irritation to the mouth, throat, and stomach. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea. This material can get into the lungs (aspiration) during swallowing or vomiting. Small amounts in the lungs can cause chemical pneumonitis, possibly leading to chronic lung dysfunction or death.

**Effects of long-term (chronic) exposure**

- : Chronic exposure may cause drying, cracking, and defatting of the skin. Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction. Prolonged occupational overexposure to solvents may cause irreversible brain and nervous system damage (sometimes referred to as "Solvent or Painter's Syndrome"). Intentional misuse by intentionally concentrating and inhaling the vapors from this product may be harmful or fatal. Toluene, a component of this product, may cause harm to the human fetus, based on tests with laboratory animals. Long term overexposure to Toluene has been associated with peripheral neuropathy (damage to the nerves of the hands and feet), liver effects, kidney effects, impaired color vision and hearing damage.

**Indication of need for immediate medical attention or special treatment**

- : Difficulty breathing persists after removing the person to fresh air.  
Any exposure to the eye which causes irritation.  
Ingestion.

## SECTION 5 – FIRE FIGHTING MEASURES

**Suitable extinguishing media** : Carbon dioxide, dry chemical powder, appropriate foam or water fog.

**Unsuitable extinguishing media** : water jet

**Hazardous combustion products** : Carbon oxides; Hydrocarbons; Aldehydes; Hydrogen chloride gas; other unidentified organic compounds.

**Special fire-fighting procedures/equipment**

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.

**Environmental precautions** : Do not allow material to enter drains or contaminate ground water system.

**Fire hazards/conditions of flammability**

- : Highly flammable liquid. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapors may be heavier than air and may collect in confined and low-lying areas. Vapor can travel considerable distance and flashback to a source of ignition. Material will float on water and can be re-ignited at the water's surface.

**Flammability classification (OSHA 29 CFR 1910.1200)**

- : Flammable Liquid, Category 2.

**Flammability classification (WHMIS)**

- : Flammable Liquid Class B2.

**Flammability classification (NFPA)**

- : Flammable Liquid Class 1B.



## SECTION 6 – ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Restrict access to area until completion of clean-up. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Refer to Section 8 on this Safety Data Sheet, EXPOSURE CONTROLS / PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.
- Environmental precautions** : Do not allow product to enter waterways. Do not allow material to contaminate ground water system.
- Spill response / clean-up** : Ventilate area of release. Eliminate all ignition sources. Stop spill or leak at source if safely possible. Use non-sparking tools to contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g., sand), then place absorbent material into a container for later disposal (see Section 13.) Do not flush into surface water or sanitary sewer system. Notify the appropriate authorities as required.
- Incompatible materials** : See Section 10.
- Special spill response procedures** : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).  
US CERCLA Reportable quantity (RQ): Hexane (5000 lbs / 2270 kg); Acetone (5000 lbs / 2270 kg); Toluene (1000 lbs / 454 kg).

## SECTION 7 – HANDLING AND STORAGE

- Special Instructions** : HIGHLY FLAMMABLE LIQUID AND VAPOR. May cause flash fire. Keep away from fire, sources of heat, or sources of electrical discharges. Aspiration Hazard – may enter lungs and cause damage. If ingested, do not induce vomiting. Inhaling fumes may cause dizziness, drowsiness, nausea, headaches, and/or other Central Nervous System (CNS) symptoms. Contains a material that may cause peripheral nervous system damage. Breathing high concentrations can cause irregular heartbeats which may be fatal. Developmental hazard - Contains Toluene, which may cause birth defects or other reproductive harm.
- Safe handling procedures** : Wear chemically resistant protective equipment during handling. Use in a well-ventilated area. Training the workers on the potential health hazards associated with product vapor is important. Do not breathe vapors. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from oxidizing materials. Keep containers tightly closed when not in use. Wash hands and exposed skin thoroughly after handling. Containers of this material may be hazardous when empty, since they retain product residues (vapors, liquid).
- Storage requirements** : Store in a cool, dry, well-ventilated area. No smoking in the area. Do not store near any incompatible materials (see Section 10). Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Protect against physical damage.
- Incompatible materials** : See Section 10.
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Permissible exposure levels** : No exposure limits have been established for the product itself. Below are exposure limits for the components in the product.

Ingredients	CAS #	ACGIH TLV		OSHA PEL	
		TWA	STEL	PEL	STEL
Acetone	67-64-1	500 ppm	750 ppm	1000 ppm TWA 2400 mg/m <sup>3</sup> TWA	N/Av
Hexanes	110-54-3	50 ppm	N/Av	500 ppm 1800 mg/m <sup>3</sup>	N/Av
Toluene	108-88-3	20 ppm	N/Av	200 ppm	300 ppm (10 min)
p-tert-Butylphenol formaldehyde resin	25085-50-1	N/Av	N/Av	N/Av	N/Av

#### Ventilation and engineering measures

: Use with adequate ventilation. Provide adequate cross air circulation. Use explosion-proof general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

#### Respiratory protection

: Respiratory protection is required if the concentrations exceed the TLV. If the TLV is exceeded, wear a NIOSH/MSHA-approved organic vapor respirator.

#### Skin protection

: Impervious gloves must be worn when using this product. Glove materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended. Advice should be sought from glove suppliers regarding the glove's breakthrough time for the ingredients listed in Section 3.

#### Eye / face protection

: Chemical goggles are recommended. A full face shield may also be necessary.

#### Other protective equipment

: Full chemical-resistant protective clothing should be used whenever splashing is anticipated. An eyewash station and safety shower should be made available in the immediate working area.

#### General hygiene considerations

: Avoid contact with eyes, skin and clothing. Do not breathe vapors. Do not eat, drink or smoke when using this product. Clean all equipment and clothing, and shower with mild soap and water at end of each work shift.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	: liquid	<b>Appearance</b>	: black liquid.
<b>Odor</b>	: Characteristic solvent odor		
<b>Odor threshold</b>	: N/Av	<b>pH</b>	: N/Av
<b>Specific gravity</b>	: approx. 0.83	<b>Boiling point</b>	: > 133°F (>56.5°C)
<b>Coefficient of water/oil distribution</b>	: N/Av	<b>Melting/Freezing point</b>	: N/Av
<b>Solubility in water</b>	: negligible	<b>Vapor pressure (mm Hg @ 20°C / 68°F)</b>	: 180
<b>Evaporation rate (n-Butyl acetate = 1)</b>	: N/Av	<b>Vapor density (Air = 1)</b>	: N/Av
<b>Volatiles (% by weight)</b>	: 80 – 82	<b>General information</b>	: N/Av
<b>Volatile organic compounds (VOCs)</b>	: 615 g/L (Calculated, SCAQMD Rule 1168)		
<b>Particle size</b>	: N/Av	<b>Flammability classification (GHS)</b>	: Flammable Liquid Cat. 2
<b>Flash point</b>	: -15°F (-26°C)	<b>Lower flammable limit (% by vol)</b>	: Not available
<b>Flash point method</b>	: Setaflash closed	<b>Upper flammable limit (% by vol)</b>	: Not available
<b>Auto-ignition temperature</b>	: N/Av	<b>Decomposition temperature</b>	: Not available
<b>Viscosity</b>	: Not available	<b>Oxidizing properties</b>	: Not available
<b>Explosion data: Sensitivity to mechanical impact / static discharge</b>			
	: Not expected to be sensitive to mechanical impact. Static discharge could ignite the vapors of this product.		

## SECTION 10 – REACTIVITY AND STABILITY INFORMATION

<b>Stability and reactivity</b>	: Stable under the recommended storage and handling conditions prescribed.
<b>Hazardous polymerization</b>	: Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	: Keep this product away from heat, sparks, flame, and other sources of ignition (e.g., pilot lights, electric motors, static electricity).

**Materials to avoid and incompatibility**

: Strong oxidizing agents; Reducing agents; Acids, Bases.

**Hazardous decomposition products**

: None known, refer to hazardous combustion products in Section 5.

## SECTION 11 – TOXICOLOGICAL INFORMATION

**Target organs**

: Central Nervous System (CNS); Eyes; Skin; Kidneys; Lungs; Liver; Heart.

**Routes of Exposure**

: *Inhalation*: YES      *Skin Absorption*: YES      *Skin and Eyes*: YES      *Ingestion*: YES

**Toxicological data**

: See below for individual ingredient acute toxicity data.

Ingredients		LC50 (4 hr) Inhalation, rat, mg/L	LD50	
			Oral, rat, mg/kg	Dermal, rabbit, mg/kg
Acetone	67-64-1	50.1	5800	20000
Hexane	110-54-3	31.86	16000	> 2000
Toluene	108-88-3	12.5	636	8390
p-tert-Butylphenol formaldehyde resin	25085-50-1	N/Av	N/Av	N/Av

**Calculated Acute Toxicity Estimates for the Product**

*Inhalation* : > 25 mg/L

*Oral* : > 2000 mg/kg

*Dermal* : > 4000 mg/kg

**Carcinogenic status**

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

**Reproductive effects**

: Contains Toluene. Toluene may cause fetotoxic effects at doses which are not maternally toxic, based on animal data.

**Germ Cell Mutagenicity**

: None known.

**Epidemiology**

: Not available.

**Sensitization to material**

: This product contains a component known to cause allergic skin sensitization reactions.

**Synergistic materials**

: N/Av

**Irritancy**

: Severe eye irritant. Moderate irritant for respiratory system and skin.

**Other important hazards**

: See Section 2 for additional information.

## SECTION 12 – ECOLOGICAL INFORMATION

**Environmental effects**

: The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

**Important environmental characteristics**

: No data is available on the product itself.

**Ecotoxicological**

: No data is available on the product itself.

**Ecotoxicity** : No data available.

**Biodegradability** : No data available.

**Bioaccumulative potential** : No data available.

**Mobility in soil** : No data available.

**PBT and vPvB assessment** : No data available.

**Other adverse effects** : No data available.



## SECTION 13 – DISPOSAL CONSIDERATION

**Handling for disposal**

: Handle waste according to recommendations in Section 7. Empty containers retain residue (liquid and/or vapor) and can be dangerous. Do not cut, weld, drill or grind on or near this container.

- Methods of disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.
- RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

## SECTION 14 – TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	UN 1133	ADHESIVES containing flammable liquid (Acetone, Hexane)	3	II	
TDG Additional Information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to TDG Part 1: 1.11, 1.17, 1.33; and Schedule 1.				
49 CFR/DOT	UN 1133	ADHESIVES containing flammable liquid (Acetone, Hexane)	3	II	
49 CFR/DOT Additional Information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to 49 CFR 173.150(b) and Special Provision 149.				

## SECTION 15 – REGULATORY INFORMATION

### Canadian Information:

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR). This SDS contains all of the information required by the HPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

### US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): Hexane (5000 lbs / 2270 kg); Acetone (5000 lbs / 2270 kg); Toluene (1000 lbs / 454 kg).

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes:

Fire hazard  
Acute hazard  
Chronic hazard.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above de minimus concentrations. This product contains: Hexane; Toluene.

### U.S. State Right To Know Laws

California Proposition 65: Warning! This product contains a chemical known to the State of California to cause developmental harm. This product contains: Toluene.

Other State Right to Know Laws:

On State RTK List?	CAS No.	CA	MA	MN	NJ	NY	PA	RI
Acetone	67-64-1	YES	YES	YES	YES	YES	YES	YES
Hexane	110-54-3	YES	YES	YES	YES	YES	YES	YES
Toluene	108-88-3	YES	YES	YES	YES	YES	YES	YES

## SECTION 16 – OTHER INFORMATION

### Legend

: ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Services  
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
CFR: Code of Federal Regulations  
CNS: Central Nervous System  
DOT: Department of Transportation  
DSL: Domestic Substances List  
EPA: Environmental Protection Agency  
GHS: Globally Harmonized System  
IARC: International Agency for Research on Cancer  
Inh: Inhalation  
N/Av: Not Available  
N/Ap: Not Applicable  
NIOSH: National Institute of Occupational Safety and Health  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible exposure limit  
RCRA: Resource Conservation and Recovery Act  
SARA: Superfund Amendments and Reauthorization Act  
STEL: Short Term Exposure Limit  
TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
TLV: Threshold Limit Values  
TSCA: Toxic Substance Control Act  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Identification System

### Disclaimer of Liability

The Information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

No warranty of any kind is given or implied. Armacell LLC will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein. This Safety Data Sheet is valid for three (3) years.

**Prepared By:**  
Armacell LLC  
P.O. Box 839  
7600 Oakwood Street Extension  
Mebane, NC, U.S.A.  
27302

(919) 304-3846  
Visit our Website at : <http://www.armacell.us>

**Revision date:** : 12-May-2015

**End of Document**

## SAFETY DATA SHEET

### SECTION 1 – IDENTIFICATION

Manufacturer's name and address:

Supplier's name and address:



Refer to Manufacturer

Armacell LLC  
P.O. Box 839  
7600 Oakwood Street Extension  
Mebane, NC 27302  
USA

Information Telephone No. : (919) 304-3846  
Website Address : <http://www.armacell.us>  
24 Hr Emergency Telephone # : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)  
Product Identifier : **Armaflex® 520 BLV Adhesive**  
Chemical Name : N/Ap Chemical Family : Mixture  
Chemical Formula : N/Ap Trade Name/Synonyms : Armaflex 520 BLV  
Molecular Weight : N/Ap Material Use : Low VOC contact adhesive.  
Uses Advised Against : No information available.

HMIS Rating : \* - Chronic Hazard 0 - Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe  
*Health: \*2 Flammability 3 Physical Hazard 0*

### SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification per 29 CFR 1910.1200 (OSHA HCS 2012) and HPR (WHMIS 2015)

Flammable liquids; Category 2 (Flammable)  
Skin corrosion/irritation; Category 2 (Irritant)  
Serious eye damage/eye irritation; Category 2A (Serious Irritant)  
Sensitisation, Skin; Category 1  
Specific target organ toxicity, single exposure; Narcotic effects; Category 3  
Reproductive toxicity; Category 2  
Aspiration hazard; Category 2

GHS Pictograms



Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapor.  
Causes skin irritation and serious eye irritation.  
May cause an allergic skin reaction.  
May cause drowsiness or dizziness.  
Suspected of damaging fertility or the unborn child.  
May be harmful if swallowed and enters airways.

Precautionary Statements

Obtain special instructions before use. (See Section 7.) Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly

closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../equipment. Use only non-sparking tools. Take precautionary measures against static discharge. In case of fire: Use fire extinguishers suitable for Classes B, C, or E for extinction. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection. Wash hands and exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep cool. Dispose of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

#### Hazards Not Otherwise Classified

Vapor may cause flash fire! May be an aspiration hazard. Aspiration may occur during swallowing or vomiting, resulting in lung injury. In case of ingestion, do not induce vomiting.

**% With Unknown Acute Toxicity** : 11% by weight of this product is comprised of ingredients with unknown acute toxicity.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (by weight)
Acetone	67-64-1	60.00 – 100.00
Acrylonitrile/Butadiene copolymer	9003-18-3	10.00 – 30.00
p-tert-butylphenol-Formaldehyde resin	25085-50-1	10.00 – 30.00
6,6'-di-tert-butyl-2,2'-methylene-di-p-cresol	119-47-1	0.1 – 1.0

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

### SECTION 4 – FIRST AID MEASURES

- General** : IF exposed or concerned: Get medical advice/attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: call a doctor/physician.
- Skin contact** : Remove/Take off immediately all contaminated clothing. Flush affected skin with gently flowing lukewarm water for at least 20 minutes. Seek immediate medical attention/advice.
- Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- Ingestion** : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
- Notes for Physician** : Treat symptomatically.
- Signs and symptoms of short-term (acute) exposure**
- Inhalation* : May cause mild irritation to the nose, throat, and respiratory tract. Inhalation of high concentrations may cause CNS effects such as nausea, headache, dizziness, fatigue, unconsciousness, or coma. May cause motor incoordination and speech abnormalities. Breathing high concentrations of this material, for example in an enclosed space or by intentional abuse, can cause death.
- Skin* : May cause moderate skin irritation. Product may be absorbed through the skin, producing effects similar to inhalation or ingestion. Allergic skin reaction (non-photo-induced): Symptoms may include redness, swelling, blistering, and itching.
- Eyes* : Direct contact will cause moderate to severe irritation to the eyes. Symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

*Ingestion* : May cause irritation to the mouth, throat, and stomach. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea. This material can get into the lungs (aspiration) during swallowing or vomiting. Small amounts in the lungs can cause chemical pneumonitis, possibly leading to chronic lung dysfunction or death.

**Effects of long-term (chronic) exposure**

: Chronic exposure may cause drying, cracking, and defatting of the skin. Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction. Prolonged occupational overexposure to solvents may cause irreversible brain and nervous system damage (sometimes referred to as "Solvent or Painter's Syndrome"). Intentional misuse by intentionally concentrating and inhaling the vapors from this product may be harmful or fatal.

**Indication of need for immediate medical attention or special treatment**

: Difficulty breathing persists after removing the person to fresh air.  
Any exposure to the eye which causes irritation.  
Ingestion.

## SECTION 5 – FIRE FIGHTING MEASURES

**Suitable extinguishing media** : Carbon dioxide, dry chemical powder, appropriate foam or water fog.

**Unsuitable extinguishing media** : water jet

**Hazardous combustion products** : Carbon oxides; Hydrocarbons; Aldehydes; Hydrogen cyanide gas; Nitrogen oxides; other unidentified organic compounds.

**Special fire-fighting procedures/equipment**

: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.

**Environmental precautions** : Do not allow material to enter drains or contaminate ground water system.

**Fire hazards/conditions of flammability**

: Highly flammable liquid. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapors may be heavier than air and may collect in confined and low-lying areas. Vapor can travel considerable distance and flashback to a source of ignition. Material will float on water and can be re-ignited at the water's surface. Material can be sensitive to static discharge.

**Flammability classification (OSHA 29 CFR 1910.1200, WHMIS 2015)**

: Flammable Liquid, Category 2.

**Flammability classification (NFPA)**

: Flammable Liquid Class 1B.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Personal precautions** : Restrict access to area until completion of clean-up. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Refer to Section 8 on this Safety Data Sheet, EXPOSURE CONTROLS / PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

**Environmental precautions** : Do not allow product to enter waterways. Do not allow material to contaminate ground water system.

**Spill response / clean-up** : Ventilate area of release. Eliminate all ignition sources. Stop spill or leak at source if safely possible. Use non-sparking tools to contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g., sand), then place absorbent material into a container for later disposal (see Section 13). Do not



flush into surface water or sanitary sewer system. Notify the appropriate authorities as required.

**Incompatible materials** : See Section 10.

**Special spill response procedures**

: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).

US CERCLA Reportable quantity (RQ): Acetone (5000 lbs / 2270 kg).

## SECTION 7 – HANDLING AND STORAGE

**Special Instructions**

: HIGHLY FLAMMABLE LIQUID AND VAPOR. May cause flash fire. Keep away from fire, sources of heat, or sources of electrical discharges. Aspiration Hazard – may enter lungs and cause damage. If ingested, do not induce vomiting. Inhaling fumes may cause dizziness, drowsiness, nausea, headaches, and/or other Central Nervous System (CNS) symptoms. Developmental hazard - Contains a non-volatile chemical which may cause birth defects or other reproductive harm. Avoid ingestion or absorption through the skin.

**Safe handling procedures**

: Wear chemically resistant protective equipment during handling. Use in a well-ventilated area. Training the workers on the potential health hazards associated with product vapor is important. Avoid breathing vapors. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from oxidizing materials. Keep containers tightly closed when not in use. Wash hands and exposed skin thoroughly after handling. Containers of this material may be hazardous when empty, since they retain product residues (vapors, liquid).

**Storage requirements**

: Store in a cool, dry, well-ventilated area. No smoking in the area. Do not store near any incompatible materials (see Section 10). Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Protect against physical damage.

**Incompatible materials**

: See Section 10.

**Special packaging materials**

: Always keep in containers made of the same materials as the supply container.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Permissible exposure levels**

: No exposure limits have been established for the product itself. Below are exposure limits for the components in the product.

Ingredients	CAS #	ACGIH TLV		OSHA PEL	
		TWA	STEL	PEL	STEL
Acetone	67-64-1	500 ppm	750 ppm	1000 ppm TWA 2400 mg/m <sup>3</sup> TWA	N/Av
Acrylonitrile/Butadiene copolymer	9003-18-3	N/Av	N/Av	N/Av	N/Av
p-tert-butylphenol-Formaldehyde resin	25085-50-1	N/Av	N/Av	N/Av	N/Av
6,6'-di-tert-butyl-2,2'-methylene-di-p-cresol	119-47-1	N/Av	N/Av	N/Av	N/Av

**Ventilation and engineering measures**

: Use with adequate ventilation. Provide adequate cross air circulation. Use explosion-proof general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

**Respiratory protection**

: Respiratory protection is required if the concentrations exceed the TLV. If the TLV is exceeded, wear a NIOSH/MSHA-approved organic vapor respirator.

**Skin protection**

: Impervious gloves must be worn when using this product. Glove materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended. Advice should

- be sought from glove suppliers regarding the glove's breakthrough time for the ingredients listed in Section 3.
- Eye / face protection** : Chemical goggles are recommended. A full face shield may also be necessary.
- Other protective equipment** : Full chemical-resistant protective clothing should be used whenever splashing is anticipated. An eyewash station and safety shower should be made available in the immediate working area.
- General hygiene considerations** : Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Do not eat, drink or smoke when using this product. Clean all equipment and clothing, and shower with mild soap and water at end of each work shift.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	: liquid	<b>Appearance</b>	: black liquid.
<b>Odor</b>	: acetone		
<b>Odor threshold</b>	: N/Av	<b>pH</b>	: N/Av
<b>Specific gravity</b>	: approx.. 0.88	<b>Boiling point</b>	: > 133°F (>56.5°C)
<b>Coefficient of water/oil distribution</b>	: N/Av	<b>Melting/Freezing point</b>	: N/Av
<b>Solubility in water</b>	: N/Av	<b>Vapor pressure (mm Hg @ 20°C / 68°F)</b>	: 180
<b>Evaporation rate (n-Butyl acetate = 1)</b>	: 7 – 8	<b>Vapor density (Air = 1)</b>	: 2
<b>Volatiles (% by weight)</b>	: 67 – 71	<b>General information</b>	: N/Av
<b>Volatile organic compounds (VOCs)</b>	: 0 g/L (Calculated, SCAQMD Rule 1168)		
<b>Particle size</b>	: N/Av	<b>Flammability classification (GHS)</b>	: Flammable Liquid Cat. 2
<b>Flash point</b>	: -4°F (-20°C)	<b>Lower flammable limit (% by vol)</b>	: 2.5 based on ingredients
<b>Flash point method</b>	: Setaflash closed	<b>Upper flammable limit (% by vol)</b>	: 12.8 based on ingredients
<b>Auto-ignition temperature</b>	: 869°F (465°C) estimated		
<b>Decomposition temperature</b>	: Not available		
<b>Viscosity</b>	: Not available	<b>Oxidizing properties</b>	: Not available
<b>Explosion data: Sensitivity to mechanical impact / static discharge</b>			
	: Static discharge can ignite product vapors. Not expected to be sensitive to mechanical impact.		

## SECTION 10 – REACTIVITY AND STABILITY INFORMATION

- Stability and reactivity** : Stable under the recommended storage and handling conditions prescribed.
- Hazardous polymerization** : Hazardous polymerization does not occur.
- Conditions to avoid** : Keep this product away from heat, sparks, flame, and other sources of ignition (e.g., pilot lights, electric motors, static electricity).
- Materials to avoid and incompatibility** : Strong oxidizing agents; Reducing agents; Acids, Bases.
- Hazardous decomposition products** : None known, refer to hazardous combustion products in Section 5.

## SECTION 11 – TOXICOLOGICAL INFORMATION

- Target organs** : Central Nervous System (CNS); Skin; Eyes.
- Routes of Exposure** : *Inhalation*: YES    *Skin Absorption*: YES    *Skin and Eyes*: YES    *Ingestion*: YES
- Toxicological data** : See below for individual ingredient acute toxicity data.

Ingredients		LC50 (4 hr)	LD50	
		Inhalation, rat, mg/L	Oral, rat, mg/kg	Dermal, rabbit, mg/kg
Acetone	67-64-1	50.1	5800	20000

Acrylonitrile/Butadiene copolymer	9003-18-3	N/Av	> 2000	N/Av
p-tert-butylphenol-Formaldehyde resin	25085-50-1	N/Av	N/Av	N/Av
6,6'-di-tert-butyl-2,2'-methylene-di-p-cresol	119-47-1	N/Av	> 10000	N/Av

#### Calculated Acute Toxicity Estimates for the Product

<i>Inhalation</i>	: > 50 mg/L
<i>Oral</i>	: > 4000 mg/kg
<i>Dermal</i>	: > 20,000 mg/kg
<b>Carcinogenic status</b>	: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
<b>Reproductive effects</b>	: Contains 6,6'-di-tert-butyl-2,2'-methylene-di-p-cresol, which may cause fetotoxic effects at doses which are not maternally toxic, based on animal data.
<b>Germ Cell Mutagenicity</b>	: None known.
<b>Epidemiology</b>	: Not available.
<b>Sensitization to material</b>	: This product contains a component known to cause allergic skin sensitization reactions.
<b>Synergistic materials</b>	: N/Av
<b>Irritancy</b>	: Severe eye irritant. Moderate irritant for respiratory system and skin.
<b>Other important hazards</b>	: See Section 2 for additional information.

## SECTION 12 – ECOLOGICAL INFORMATION

**Environmental effects** : The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

#### Important environmental characteristics



	: No data is available on the product itself.
<b>Ecotoxicological</b>	: No data is available on the product itself.
<b>Ecotoxicity</b>	: No data available.
<b>Biodegradability</b>	: No data available.
<b>Bioaccumulative potential</b>	: No data available.
<b>Mobility in soil</b>	: No data available.
<b>PBT and vPvB assessment</b>	: No data available.
<b>Other adverse effects</b>	: No data available.

## SECTION 13 – DISPOSAL CONSIDERATION

<b>Handling for disposal</b>	: Handle waste according to recommendations in Section 7. Empty containers retain residue (liquid and/or vapor) and can be dangerous. Do not cut, weld, drill or grind on or near this container.
<b>Methods of disposal</b>	: Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.
<b>RCRA</b>	: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

## SECTION 14 – TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
------------------------	-----------	---------------	-------	---------------	-------

<b>TDG</b>	<b>UN 1133</b>	<b>ADHESIVES containing flammable liquid (Acetone)</b>	<b>3</b>	<b>II</b>	
<b>TDG Additional Information</b>	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to TDG Part 1: 1.11, 1.17, 1.33; and Schedule 1.				
<b>49 CFR/DOT</b>	<b>UN 1133</b>	<b>ADHESIVES containing flammable liquid (Acetone)</b>	<b>3</b>	<b>II</b>	
<b>49 CFR/DOT Additional Information</b>	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to 49 CFR 173.150(b) and Special Provision 149.				

## SECTION 15 – REGULATORY INFORMATION

### Canadian Information:

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR). This SDS contains all of the information required by the HPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

### US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): Acetone (5000 lbs / 2270 kg).

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes:

Fire Hazard  
Acute Hazard  
Chronic Hazard.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product is not subject to SARA notification requirements, since it does not contain Toxic Chemical constituents above de minimus concentrations.

### U.S. State Right To Know Laws

California Proposition 65: Warning! This product contains a chemical known to the State of California to cause cancer and/or developmental harm.

Other State Right to Know Laws:

On State RTK List?	CAS No.	CA	MA	MN	NJ	NY	PA	RI
Acetone	67-64-1	YES	YES	No	YES	YES	YES	YES

## SECTION 16 – OTHER INFORMATION

### **Legend**

: ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Services  
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
CFR: Code of Federal Regulations  
CNS: Central Nervous System  
DOT: Department of Transportation  
DSL: Domestic Substances List  
EPA: Environmental Protection Agency  
GHS: Globally Harmonized System  
IARC: International Agency for Research on Cancer  
IDL: Ingredient Disclosure List (Canada)

Inh: Inhalation  
N/Av: Not Available  
N/Ap: Not Applicable  
NIOSH: National Institute of Occupational Safety and Health  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible exposure limit  
RCRA: Resource Conservation and Recovery Act  
SARA: Superfund Amendments and Reauthorization Act  
STEL: Short Term Exposure Limit  
TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
TLV: Threshold Limit Values  
TSCA: Toxic Substance Control Act  
TWA: Time Weighted Average  
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No warranty of any kind is given or implied. Armacell LLC will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein. This Safety Data Sheet is valid for three (3) years.

**Prepared By:**  
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Visit our Website at

: <http://www.armacell.us>

**Revision date:** : 12-May-2015

**End of Document**

## SAFETY DATA SHEET

with reference to OSHA Hazard Communication Standard (HCS)  
published in Federal Register 77 FR 17574 - March 2012

### Armacell Products

revised 12/19/2013, replaces version 07/17/2013

STATUS: 12/19/2013

PAGE: 1 (of 4)

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

PRODUCT NAME AP Armaflex Tape

USE OF THE PRODUCT This product is classified as an "article" according to Title 29 of the Code of Federal Regulations, OSHA Part 1910.1200©, page 463.

"Article means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g. minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees."

MANUFACTURER /DISTRIBUTOR Armacell LLC  
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**Technical contact point:**  
Michael Resetar  
Technical Manager Insulation Products Division  
Tel: +1-919-304-8908 Fax: +1-919-304-8964  
michael.j.resetar@armacell.com

EMERGENCY INFORMATION Armacell LLC  
7600 Oakwood Street Extension  
Mebane, NC 27302  
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www.armacell.com

#### 2. HAZARDS IDENTIFICATION

HAZARD DESIGNATION None

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

DESCRIPTION Expanded, Closed-cell or Semi open cell foams containing Polyvinyl Chloride/ Nitrile-Butadiene Rubber (PVC/NBR) Available with self adhesive PSA backing

- Nitrile-butadiene rubber and PVC (NBR/PVC)

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#### 4. FIRST-AID MEASURES

IN CASE OF INHALATION	Not applicable
IN CASE OF SKIN CONTACT	Not applicable
IN CASE OF EYE CONTACT	Not applicable
IN CASE OF INGESTION	Not applicable

#### 5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA      Unrestricted

**SPECIAL EXPOSURE HAZARDS ARISING FROM THE PREPARATION**      Fire gases, do not breathe. Emits toxic fumes under fire conditions because of incomplete incineration. In the case of fire wear self-contained breathing apparatus.

#### 6. ACCIDENTAL RELEASE MEASURE

PERSONAL PRECAUTIONS	Not applicable
ENVIRONMENTAL PRECAUTIONS	Not applicable
METHODS FOR CLEANING UP / TAKING UP	Take up mechanically.

#### 7. HANDLING AND STORAGE

HINTS FOR SAFE HANDLING	None
HINTS FOR PROTECTION AGAINST FIRE AND EXPLOSION	None
HINTS FOR SEPARATION OF INCOMPATIBLE PRODUCTS	None
FURTHER INFORMATION ON STORAGE CONDITIONS	Can be stored in clean, dry rooms under normal conditions with respect to humidity (50 - 70 %) and surrounding temperature of 32 °F – 95 °F (0 °C - 35 °C).

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

GENERAL HEALTH MEASURES      Not applicable

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RESPIRATORY PROTECTION Not applicable

HAND PROTECTION Not applicable

EYE PROTECTION Not applicable

### 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Rolls with self-adhesive tape backing

COLOR Black

ODOR Characteristic

MELTING POINT Not applicable

BOILING POINT Not applicable

LOWER EXPLOSION LIMIT Not applicable

UPPER EXPLOSION LIMIT Not applicable

DENSITY AT 73 °F (23 °C) 2.5 – 6 lb./ ft<sup>3</sup> (40 – 96 kg./ m<sup>3</sup>)

WATER SOLUBILITY 73 °F (23 °C) Insoluble

### 10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID Avoid open flames.

HAZARDOUS REACTION No dangerous reactions known.

HAZARDOUS DECOMPOSITION  
PRODUCTS No decomposition if used as prescribed.

### 11. TOXICOLOGICAL INFORMATION

EXPERIENCE MADE IN PRACTICE When used and handled according to specification, the product does not have any harmful effect according to our experience and knowledge.



## SAFETY DATA SHEET

with reference to OSHA Hazard Communication Standard (HCS)  
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### Armacell Products

revised 12/19/2013, replaces version 07/17/2013

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#### 12. ECOLOGICAL INFORMATION

##### ADDITIONAL ECOLOGICAL INFORMATION

The product is classified non-hazardous to waters.

#### 13. DISPOSAL CONSIDERATIONS

##### DISPOSAL PRODUCT

Dispose waste according to applicable local, state and federal regulations.

#### 14. TRANSPORT INFORMATION

No hazardous material as defined by the transport regulations (ADR/RID, IMDG-Code, ICAO-TI/IATA-DGR).

#### 15. REGULATORY INFORMATION

This product does not require labelling in terms of REACH regulation (EC) 1907/2006

#### 16. OTHER INFORMATION

The data in this safety data sheet describe the safety requirements of our product based on our current level of knowledge and may not be considered to guarantee any product properties and it is sufficient for **United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS) standard**. However, we have no knowledge of or control over the working conditions. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

## SAFETY DATA SHEET

with reference to OSHA Hazard Communication Standard (HCS)  
published in Federal Register 77 FR 17574 - March 2012

### Armacell Products

revised 12/19/2013, replaces version 07/17/2013

STATUS: 12/19/2013

PAGE: 1 (of 4)

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

**PRODUCT NAME** AP Armaflex Products: Including AP Armaflex Tube, AP Armaflex SS Tube, AP Armaflex Sheets and Rolls, AP Armaflex SA Sheets and Rolls, AP Armaflex Tape, AP Armaflex W, AP Armaflex White LapSeal, Armaflex Coil, and HD Armaflex Sheet and Tube.

**USE OF THE PRODUCT** This product is classified as an "article" according to Title 29 of the Code of Federal Regulations, OSHA Part 1910.1200©, page 463.

"Article means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g. minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees."

**MANUFACTURER /DISTRIBUTOR** Armacell LLC  
7600 Oakwood Street Extension  
Mebane, NC 27302  
Tel: +1-919-304-3846  
www.armacell.com

**Technical contact point:**  
Michael Resetar  
Technical Manager Insulation Products Division  
Tel: +1-919-304-8908 Fax: +1-919-304-8964  
michael.j.resetar@armacell.com

**EMERGENCY INFORMATION** Armacell LLC  
7600 Oakwood Street Extension  
Mebane, NC 27302  
Tel: +1-919-304-3846  
www.armacell.com

#### 2. HAZARDS IDENTIFICATION

**HAZARD DESIGNATION** None

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

**DESCRIPTION** Expanded, Closed-cell or Semi open cell foams containing Polyvinyl Chloride/ Nitrile-Butadiene Rubber (PVC/NBR) Available in rolls, sheets and tubes at various dimensions

- Nitrile-butadiene rubber and PVC (NBR/PVC)

## SAFETY DATA SHEET

with reference to OSHA Hazard Communication Standard (HCS)  
published in Federal Register 77 FR 17574 - March 2012

### Armacell Products

revised 12/19/2013, replaces version 07/17/2013

STATUS: 12/19/2013

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#### 4. FIRST-AID MEASURES

IN CASE OF INHALATION	Not applicable
IN CASE OF SKIN CONTACT	Not applicable
IN CASE OF EYE CONTACT	Not applicable
IN CASE OF INGESTION	Not applicable

#### 5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA      Unrestricted

**SPECIAL EXPOSURE HAZARDS ARISING FROM THE PREPARATION**      Fire gases, do not breathe. Emits toxic fumes under fire conditions because of incomplete incineration. In the case of fire wear self-contained breathing apparatus.

#### 6. ACCIDENTAL RELEASE MEASURE

PERSONAL PRECAUTIONS	Not applicable
ENVIRONMENTAL PRECAUTIONS	Not applicable
METHODS FOR CLEANING UP / TAKING UP	Take up mechanically.

#### 7. HANDLING AND STORAGE

HINTS FOR SAFE HANDLING	None
HINTS FOR PROTECTION AGAINST FIRE AND EXPLOSION	None
HINTS FOR SEPARATION OF INCOMPATIBLE PRODUCTS	None
FURTHER INFORMATION ON STORAGE CONDITIONS	Can be stored in clean, dry rooms under normal conditions with respect to humidity (50 - 70 %) and surrounding temperature of 32 °F – 95 °F (0 °C - 35 °C).

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

GENERAL HEALTH MEASURES      Not applicable

## SAFETY DATA SHEET

with reference to OSHA Hazard Communication Standard (HCS)  
published in Federal Register 77 FR 17574 - March 2012

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STATUS: 12/19/2013

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RESPIRATORY PROTECTION Not applicable

HAND PROTECTION Not applicable

EYE PROTECTION Not applicable

### 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Sheets, Rolls and Tubes (some brands also self-adhesive); some brands also self-adhesive strips or self-adhesive tapes

COLOR Black, White

ODOR Characteristic

MELTING POINT Not applicable

BOILING POINT Not applicable

LOWER EXPLOSION LIMIT Not applicable

UPPER EXPLOSION LIMIT Not applicable

DENSITY AT 73 F (23 °C) 2.5 – 6 lb./ ft<sup>3</sup> (40 – 96 kg./ m<sup>3</sup>)

WATER SOLUBILITY 73 F (23 °C) Insoluble

### 10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID Avoid open flames.

HAZARDOUS REACTION No dangerous reactions known.

HAZARDOUS DECOMPOSITION  
PRODUCTS No decomposition if used as prescribed.

### 11. TOXICOLOGICAL INFORMATION

EXPERIENCE MADE IN PRACTICE When used and handled according to specification, the product does not have any harmful effect according to our experience and knowledge.

## SAFETY DATA SHEET

with reference to OSHA Hazard Communication Standard (HCS)  
published in Federal Register 77 FR 17574 - March 2012

### Armacell Products

revised 12/19/2013, replaces version 07/17/2013

STATUS: 12/19/2013

PAGE: 4 (of 4)

#### 12. ECOLOGICAL INFORMATION

##### ADDITIONAL ECOLOGICAL INFORMATION

The product is classified non-hazardous to waters.

#### 13. DISPOSAL CONSIDERATIONS

##### DISPOSAL PRODUCT

Dispose waste according to applicable local, state and federal regulations.

#### 14. TRANSPORT INFORMATION

No hazardous material as defined by the transport regulations (ADR/RID, IMDG-Code, ICAO-TI/IATA-DGR).

#### 15. REGULATORY INFORMATION

This product does not require labelling in terms of REACH regulation (EC) 1907/2006

#### 16. OTHER INFORMATION

The data in this safety data sheet describe the safety requirements of our product based on our current level of knowledge and may not be considered to guarantee any product properties and it is sufficient for **United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS) standard**. However, we have no knowledge of or control over the working conditions. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

Revision: 19.03.2015

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Armaflex WB Finish
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Coating compound/ Surface coating/ paint
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Armacell, LLC  
7600 Oakwood St. Ext.  
Mebane, NC 27302  
Phone: 919-304-3846
- **1.4 Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924, +1 (813)248-0585



## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H317, H360Df, H411.  
Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).  
The following classifications are applicable only to OSHA (USA) regulations and not the specific CLP regulation: H360.  
Repr. 1 H360: May damage fertility or the unborn child



health hazard

Carc. 1B                      H350      May cause cancer.

Repr. 1B                      H360Df    May damage the unborn child. Suspected of damaging fertility.



environment

Aquatic Chronic 2 H411      Toxic to aquatic life with long lasting effects.



Skin Sens. 1                      H317      May cause an allergic skin reaction.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



T; Toxic

R45-60-61:      May cause cancer. May impair fertility. May cause harm to the unborn child.

(Contd. on page 2)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
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Trade name: Armaflex WB Finish

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Xn; Harmful

R62: Possible risk of impaired fertility.



Xi; Sensitising

R43: May cause sensitisation by skin contact.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

- **Additional information:**

There are no other hazards not otherwise classified that have been identified.

0 percent of the mixture consists of component(s) of unknown toxicity

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H317, H360Df, H411.

The following Hazard Statements are applicable only to the general GHS regulations and not the specific CLP regulation: H360.

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).



GHS07 GHS08 GHS09

- **Signal word** Danger

- **Hazard-determining components of labelling:**

benzyl butyl phthalate

Attapulgit (Palygorskite)

Quartz (SiO<sub>2</sub>)

Petroleum Distillates

(Contd. on page 3)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

Revision: 19.03.2015

Trade name: Armaflex WB Finish

(Contd. of page 2)

· **Hazard statements**

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H317, H360Df, H411.

The following Hazard Statements are applicable only to the general GHS regulations and not the specific CLP regulation: H360.

H360: May damage fertility or the unborn child.

H317 May cause an allergic skin reaction.

H350 May cause cancer.

H360Df May damage the unborn child. Suspected of damaging fertility.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

The following Precautionary Statements are applicable only to the EU CLP regulations and not the OSHA GHS regulations: P302+P352, P333+P313.

P280 Wear protective gloves.

P273 Avoid release to the environment.

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

P363 Wash contaminated clothing before reuse.

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

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P302+P352 IF ON SKIN: Wash with plenty of water.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

Restricted to professional users.

· **Hazard description:**

· **WHMIS-symbols:**

D2A - Very toxic material causing other toxic effects



· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = \*1

Fire = 0

Reactivity = 0

\* - Indicates a long term health hazard from repeated or prolonged exposures.

· **HMIS Long Term Health Hazard Substances**

13463-67-7	titanium dioxide
85-68-7	benzyl butyl phthalate
14808-60-7	Quartz (SiO <sub>2</sub> )

(Contd. on page 4)



# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

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Trade name: Armaflex WB Finish

(Contd. of page 3)

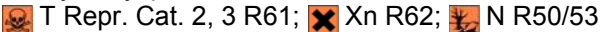

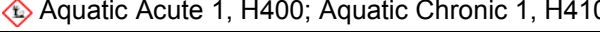




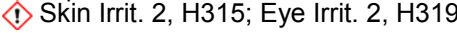



- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

### · 3.2 Mixtures

- **Description:** Mixture of substances listed below with nonhazardous additions.


#### · **Dangerous components:**

CAS: 85-68-7 EINECS: 201-622-7 Index number: 607-430-00-3	benzyl butyl phthalate 	2,5-10%
	 Repr. 1B, H360Df  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
CAS: 12174-11-7 EC number: 601-805-5	Attapulgite (Palygorskite)  Xn R40	≤ 2,5%
	 Carc. 2, H351	
CAS: 9016-45-9 NLP: 500-024-6	4-nonylphenyl-polyethylene glycol  Xi R36/38; N R51/53	< 1%
	 Aquatic Chronic 2, H411  Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 14808-60-7 EINECS: 238-878-4	Quartz (SiO <sub>2</sub> )  T R49; Xn R48	< 1%
	 Carc. 1A, H350	
	Petroleum Distillates	< 1%
	 Carc. 1B, H350	

#### · **SVHC**

85-68-7	benzyl butyl phthalate
9016-45-9	4-nonylphenyl-polyethylene glycol

#### · **Dangerous Components (Alternative Classifications):**

CAS: 13463-67-7 EINECS: 236-675-5	titanium dioxide	 Carc. 2, H351	10-25%
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#### · **Additional information:**

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.  
For the wording of the listed risk phrases refer to section 16.

#### · **Notable Trace Components (≤ 0,1% w/w)**

(Contd. on page 5)



















# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

Revision: 19.03.2015

**Trade name: Armaflex WB Finish**

CAS: 55965-84-9 Index number: 613-167-00-5	<div style="text-align: right;">(Contd. of page 4)</div> reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)  T R23/24/25;  C R34;  Xi R43;  N R50/53  Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331  Skin Corr. 1B, H314  Aquatic Acute 1, H400; Aquatic Chronic 1, H410  Skin Sens. 1, H317
CAS: 1897-45-6 EINECS: 217-588-1 Index number: 608-014-00-4	chlorothalonil (ISO)  T+ R26;  Xn R40;  Xi R37-41;  Xi R43;  N R50/53 Carc. Cat. 3  Acute Tox. 2, H330  Carc. 2, H351  Eye Dam. 1, H318  Aquatic Acute 1, H400; Aquatic Chronic 1, H410  Skin Sens. 1, H317; STOT SE 3, H335

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

#### After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

#### After skin contact:

Immediately remove any clothing soiled by the product.

Immediately wash with water and soap and rinse thoroughly.

Laundry contaminated clothing before re-use.

If skin irritation continues, consult a doctor.

#### After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

#### After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

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

Headache

Dizziness

Nausea in case of ingestion.

Gastric or intestinal disorders when ingested.

Allergic reactions

#### Hazards

May cause cancer.

Suspected of damaging fertility or the unborn child.

(Contd. on page 6)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

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Trade name: Armaflex WB Finish

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· **4.3 Indication of any immediate medical attention and special treatment needed**

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

Contains reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

## SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

Foam

Water haze or fog

Fire-extinguishing powder

Carbon dioxide

· **For safety reasons unsuitable extinguishing agents:** None.

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

Formation of toxic gases is possible during heating or in case of fire.

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information** Cool endangered receptacles with water spray.

## SECTION 6: Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Particular danger of slipping on leaked/spilled product.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

· **6.2 Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Send for recovery or disposal in suitable receptacles.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

(Contd. on page 7)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

Revision: 19.03.2015

Trade name: Armaflex WB Finish

(Contd. of page 6)

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Prevent formation of aerosols.  
Use only in well ventilated areas.  
Avoid splashes or spray in enclosed areas.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Do not store together with oxidising and acidic materials.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed receptacles.  
Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

### · **Ingredients with limit values that require monitoring at the workplace:**

#### **13463-67-7 titanium dioxide**

- PEL (USA) Long-term value: 15\* mg/m<sup>3</sup>  
\*total dust
- REL (USA) See Pocket Guide App. A
- TLV (USA) Long-term value: 10 mg/m<sup>3</sup>  
withdrawn from NIC
- EL (Canada) Long-term value: 10\* 3\*\* mg/m<sup>3</sup>  
\*total dust; \*\*respirable fraction; IARC 2B
- EV (Canada) Long-term value: 10 mg/m<sup>3</sup>  
total dust

#### **14808-60-7 Quartz (SiO<sub>2</sub>)**

- PEL (USA) see Quartz listing
- REL (USA) Long-term value: 0,05\* mg/m<sup>3</sup>  
\*respirable dust; See Pocket Guide App. A
- TLV (USA) Long-term value: 0,025\* mg/m<sup>3</sup>  
\*as respirable fraction

(Contd. on page 8)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

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Trade name: Armaflex WB Finish

(Contd. of page 7)

EL (Canada)	Long-term value: 0,025 mg/m <sup>3</sup> ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0,10* mg/m <sup>3</sup> *respirable fraction

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes and skin.  
Pregnant women should strictly avoid inhalation or skin contact.
- **Respiratory protection:**  
Use suitable respiratory protective device when high concentrations are present.  
Use respiratory protection when grinding or cutting material.  
For spills, respiratory protection may be advisable.  
NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**  
No further relevant information available.

(Contd. on page 9)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

Revision: 19.03.2015

Trade name: Armaflex WB Finish

(Contd. of page 8)

- **Risk management measures**  
See Section 7 for additional information.  
No further relevant information available.

## SECTION 9: Physical and chemical properties

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

#### · General Information

##### · Appearance:

Form:	Liquid
-------	--------

Colour:	White
---------	-------

· Odour:	Mild
----------	------

· Odour threshold:	Not determined.
--------------------	-----------------

· pH-value:	Not determined.
-------------	-----------------

##### · Change in condition

Melting point/Melting range:	Not Determined.
------------------------------	-----------------

Boiling point/Boiling range:	>100 °C (>212 °F)
------------------------------	-------------------

· Flash point:	Not applicable.
----------------	-----------------

· Flammability (solid, gaseous):	Not applicable.
----------------------------------	-----------------

· Auto/Self-ignition temperature:	Not determined.
-----------------------------------	-----------------

· Decomposition temperature:	Not determined.
------------------------------	-----------------

· Self-igniting:	Product is not self-igniting.
------------------	-------------------------------

· Danger of explosion:	Product does not present an explosion hazard.
------------------------	---

##### · Explosion limits:

Lower:	Not determined.
--------	-----------------

Upper:	Not determined.
--------	-----------------

· Vapour pressure at 20 °C (68 °F):	23 hPa (17 mm Hg)
-------------------------------------	-------------------

· Density at 20 °C (68 °F):	1,4 g/cm <sup>3</sup> (11,683 lbs/gal)
-----------------------------	--

· Relative density	Not determined.
--------------------	-----------------

· Vapour density at 20 °C (68 °F)	> 1 g/cm <sup>3</sup> (> 8,345 lbs/gal) (Air= 1)
-----------------------------------	--

· Evaporation rate	Not determined.
--------------------	-----------------

##### · Solubility in / Miscibility with

water:	Dispersible.
--------	--------------

· Partition coefficient (n-octanol/water):	Not determined.
--	-----------------

##### · Viscosity:

Dynamic:	Not determined.
----------	-----------------

Kinematic:	Not determined.
------------	-----------------

(Contd. on page 10)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

Revision: 19.03.2015

Trade name: Armaflex WB Finish

· **9.2 Other information**

No further relevant information available.

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**SECTION 10: Stability and reactivity**

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**  
Toxic fumes may be released if heated above the decomposition point.  
Reacts with strong acids and oxidising agents.
- **10.4 Conditions to avoid**  
Keep away from heat and direct sunlight.  
Store away from oxidising agents.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NOx)  
Hydrogen chloride (HCl)

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:** None.
- **Primary irritant effect:**
- **on the skin:** Slight irritant effect on skin and mucous membranes.
- **on the eye:** Slight irritant effect on eyes.
- **Sensitisation:** Sensitisation possible through skin contact.
- **Subacute to chronic toxicity:** No further relevant information available.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Irritant  
Danger through skin adsorption.  
May cause cancer.  
May damage fertility or the unborn child.
- **Sensitisation:** May cause an allergic skin reaction.
- **Repeated dose toxicity:**  
May cause damage to organs through prolonged or repeated exposure.  
Repeated exposures may result in skin and/or respiratory sensitivity.  
May cause cancer.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**  
Carc. 1B, Repr. 1B

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# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

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Trade name: Armaflex WB Finish

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## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** Toxic for aquatic organisms
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
 Danger to drinking water if even extremely small quantities leak into the ground.  
 Also poisonous for fish and plankton in water bodies.  
 Toxic for aquatic organisms  
 Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
 Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.  
 The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

- **14.1 UN-Number**
- **DOT** Not Regulated
- **ADR, IMDG, IATA** UN3082

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# Safety Data Sheet

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OSHA GHS

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· **14.2 UN proper shipping name**



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 5 L (1.3 gal).

· DOT

Not Regulated

· ADR

3082 ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, LIQUID, N.O.S. (benzyl butyl phthalate)  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (benzyl butyl phthalate, chlorothalonil  
(ISO)), MARINE POLLUTANT  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (benzyl butyl phthalate)

· IMDG

· IATA

· **14.3 Transport hazard class(es)**

· DOT

Not Regulated

· Class

· ADR



· Class

9 (M6) Miscellaneous dangerous substances and  
articles.

· Label

9

· **IMDG, IATA**



· Class

9 Miscellaneous dangerous substances and articles.

· Label

9

· **14.4 Packing group**

· DOT

Not Regulated

· ADR, IMDG, IATA

III

· **14.5 Environmental hazards:**

Product contains environmentally hazardous  
substances: benzyl butyl phthalate

· Marine pollutant:

Yes

Symbol (fish and tree)

· Special marking (ADR):

Symbol (fish and tree)

· Special marking (IATA):

Symbol (fish and tree)

· **14.6 Special precautions for user**

Warning: Miscellaneous dangerous substances and  
articles.

· Danger code (Kemler):

90

· EMS Number:

F-A,S-F

· **14.7 Transport in bulk according to Annex II of  
MARPOL73/78 and the IBC Code**

Not applicable.

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# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 20.03.2015

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Trade name: Armaflex WB Finish

(Contd. of page 12)

· **Transport/Additional information:**

· <b>ADR</b>	5L
· <b>Limited quantities (LQ)</b>	Code: E1
· <b>Excepted quantities (EQ)</b>	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· <b>Transport category</b>	3
· <b>Tunnel restriction code</b>	E
· <b>IMDG</b>	5L
· <b>Limited quantities (LQ)</b>	Code: E1
· <b>Excepted quantities (EQ)</b>	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (benzyl butyl phthalate), 9, III

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65 (California):**

· **Chemicals known to cause cancer:**

Reference to Attapulgit is based on unbound respirable particles and is not generally applicable to product as supplied.

Reference to Titanium Dioxide is based on unbound respirable particles and is not generally applicable to product as supplied.

Reference to Crystalline Silica and/or Quartz is based on unbound respirable particles and is not generally applicable to product as supplied.

13463-67-7	titanium dioxide
12174-11-7	Attapulgit (Palygorskite)
14808-60-7	Quartz (SiO <sub>2</sub> )
1897-45-6	chlorothalonil (ISO)

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

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· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

85-68-7 benzyl butyl phthalate

· **Carcinogenic Categories**

· **EPA (Environmental Protection Agency)**

85-68-7 benzyl butyl phthalate

C

· **IARC (International Agency for Research on Cancer)**

13463-67-7 titanium dioxide

2B

85-68-7 benzyl butyl phthalate

3

12174-11-7 Attapulgite (Palygorskite)

2B

14808-60-7 Quartz (SiO<sub>2</sub>)

1

· **TLV (Threshold Limit Value established by ACGIH)**

13463-67-7 titanium dioxide

A4

14808-60-7 Quartz (SiO<sub>2</sub>)

A2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

13463-67-7 titanium dioxide

14808-60-7 Quartz (SiO<sub>2</sub>)

· **Canada**

· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

85-68-7 benzyl butyl phthalate

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· **Other regulations, limitations and prohibitive regulations**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

· **Substances of very high concern (SVHC) according to REACH, Article 57**

85-68-7 benzyl butyl phthalate

9016-45-9 4-nonylphenyl-polyethylene glycol

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### · Relevant phrases

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H350 May cause cancer.
- H351 Suspected of causing cancer.
- H360Df May damage the unborn child. Suspected of damaging fertility.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

R36/38 Irritating to eyes and skin.

R40 Limited evidence of a carcinogenic effect.

R48 Danger of serious damage to health by prolonged exposure.

R49 May cause cancer by inhalation.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R61 May cause harm to the unborn child.

R62 Possible risk of impaired fertility.

### · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 1A: Carcinogenicity, Hazard Category 1A

Carc. 1B: Carcinogenicity, Hazard Category 1B

Carc. 2: Carcinogenicity, Hazard Category 2

Repr. 1B: Reproductive toxicity, Hazard Category 1B

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

### · Sources

SDS Prepared by:  
ChemTel Inc.

(Contd. on page 16)

**Safety Data Sheet**  
**according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and**  
**OSHA GHS**

Printing date 20.03.2015

Revision: 19.03.2015

**Trade name: Armaflex WB Finish**

(Contd. of page 15)

1305 North Florida Avenue  
Tampa, Florida USA 33602-2902  
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573  
Website: [www.chemtelinc.com](http://www.chemtelinc.com)

# MATERIAL SAFETY DATA SHEET

Date Prepared: 11-19-09

Revision No.: 1.0

## **SECTION 1: Product and Manufacturer Information**

### *Product Description:*

ASJ tape

### *Product Designations:*

1540CW

### *Manufacturer:*

Venture Tape Corp.  
30 Commerce Road  
Rockland, MA 02370  
www.venturetape.com

800-343-1076

## **SECTION 2: Hazardous Components**

The above listed products may contain one or more hazardous chemical components. However, due to their incorporation into the structure of the products, exposure to such components is not anticipated under normal conditions of use. See section 16 for further discussion.

## **SECTION 3: Description of Hazards**

Exposure to hazards of chemical components is not anticipated in normal use. MSDS for individual components are available from Venture Tape upon request by contacting Technical Service at the above number.

## **SECTION 4: First Aid Measures**

Clean and dress wound if cut by product edge. There are no known acute, immediate effects requiring treatment as a result of the use of this product as supplied.

# **MATERIAL SAFETY DATA SHEET**

**Pressure Sensitive Tape Products (continued)**

**Page 2 of 3**

## **SECTION 5: Fire-fighting Measures**

All extinguishing chemicals and methods are applicable. Self-contained, positive pressure breathing apparatus should be used if available in fire conditions. Fire or very high temperatures (not normal conditions of use) can cause release of toxic smoke and fumes.

## **SECTION 6: Accidental Release Measures**

Not applicable.

## **SECTION 7: Handling and Storage Guidelines**

Use care to avoid paper cuts from sheet edges. No other special handling or storage precautions apply in respect to potential hazards.

## **SECTION 8: Exposure Controls and Personal Protection**

None required in normal use. Exercise care to avoid paper cuts from sheet edges.

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

Product is a manufactured article in the form of a flexible sheet or strip. Contains some combination of two or more of the following major material components: paper, plastic film, aluminum foil, reinforcing yarn, adhesive.

## **SECTION 10: Stability and Reactivity**

Hazardous decomposition will occur only under fire conditions. Various harmful compounds could be formed during combustion. No hazards associated with normal use.

## **SECTION 11: Toxicological Information**

Although hazardous chemicals may be used in this product, exposure to those chemicals and possible hazardous effects will not occur with the product in this form, in normal use. MSDS for individual hazardous chemicals can be supplied upon request by contacting Technical Service at the above number.

# MATERIAL SAFETY DATA SHEET

Pressure Sensitive Tape Products (continued)

Page 3 of 3

## **SECTION 12: Ecological Information**

The anticipated instances of release into the environment would be during disposal of scrapped building materials, of which this product could be a part, or waste during use. Other than the paper component, the materials of construction are very resistant to biodegradation and are not water soluble. Potential impact may be as per individual hazardous components, MSDS for which can be supplied upon request by contacting Technical Service at the above number.

## **SECTION 13: Disposal Considerations**

Dispose of per appropriate local regulations. Product is not recyclable.

## **SECTION 14: Transport Information**

No special procedures required.

## **SECTION 15: Regulatory Information**

No known regulations apply.

## **SECTION 16: Other Information**

Per the Code of Federal Regulations 1910.1200, this product is considered by Venture Tape to be an *article*, defined in the regulation as “a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees.”

Although this product may contain hazardous components, we do not believe those hazards are present as manufactured or when used. Since the product meets the definition of an article, it is technically not subject to this regulation or MSDS reporting. This document is provided for informational purposes, and is not meant to imply that this product is hazardous.





# Material Safety Data Sheet

## SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** ASTEC #900

**General Use:** Protective coating

Page 1 of 4

**Product Description:** White viscous liquid, slight characteristic acrylic odor

**Manufacturer's Name**

Insulating Coatings Corporation

**Date Prepared:** July 15, 2013

**Supersedes:** March 9, 2009

**Address (Number, Street, P.O Box)**

956 South Hwy 41

**Telephone Number for Information**

(800)345-5306

**Address (City, State, and Zip Code)**

Inverness, FL 34450

**Country**

USA

**Emergency Telephone Number**

ChemTel Inc. (800)255-3924 Intl. + 01 (813)248-0585

## SECTION 2 – HAZARDS IDENTIFICATION

### Emergency Overview

WARNING! Harmful or fatal if swallowed, harmful if inhaled. May cause allergic skin reaction. May cause irritation to skin, eyes, and respiratory tract. Affects central nervous system.

### Potential Health Effects

**Inhalation:** None expected, however, certain individuals may experience minor nausea or headaches.

**Skin:** None expected, however, prolonged contact may cause irritation.

**Eyes:** This product is an eye irritant. Contact with the eyes will cause irritation.

**Ingestion:** Large quantities may be harmful or fatal if swallowed. May cause gastric distress, vomiting, and diarrhea.

### Carcinogenicity

**NTP?** No **IARC Monographs?** Yes **OSHA Regulated?** No

IARC has assigned titanium dioxide to Group 2B. Substances assigned to the group are described as "possibly carcinogenic to humans." IARC also states that "evidence of carcinogenicity in humans is inadequate."

## SECTION 3 – HAZARDOUS INGREDIENTS

Hazardous Components	% (by weight)	CAS #	EINECS #	OSHA PEL (mg/m <sup>3</sup> ) (Total/Respirable Dust)	ACGIH TLV (mg/m <sup>3</sup> )
Acrylic polymer	30-40	Proprietary	Proprietary	NA	NA
Calcium carbonate	15-25	1317-65-3	215-279-6	15/5	10 (as dust)
Titanium dioxide	5-10	13463-67-7	236-675-5	10/5	10 (as dust)
Ethylene glycol	1-5	107-21-1	203-473-3	See Section 8	See Section 8
Perlite, expanded	1-5	93763-70-3	Not listed	15/5	10 (as dust)
Zinc oxide	1-5	1314-13-2	215-222-5	15/5	10 (as dust)

The remaining components of this product are non-hazardous or are in small enough quantities as to not meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product.



# MATERIAL SAFETY DATA SHEET

Page 2 of 4

PRODUCT NAME: ASTEC #900

July 15, 2013

## SECTION 4 – FIRST AID MEASURES

**Inhalation:** Remove affected person to fresh air; if symptoms persist seek medical attention.

**Skin:** Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

**Eyes:** Check for and remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.

**Ingestion:** Give two glasses of water for dilution; DO NOT induce vomiting; seek medical attention; never give anything by mouth to an unconscious person.

## SECTION 5 – FIRE FIGHTING MEASURES

**General Hazards:** Product is not considered flammable or combustible. Products of combustion include compounds of carbon, hydrogen, and oxygen, including carbon monoxide.

**Extinguishing Media:** Carbon dioxide, water, water fog, dry chemical, chemical foam

**Fire Fighting Procedures:** Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released.

**Unusual Fire and Explosion Hazards:** None

**Hazardous Combustion Products:** Smoke, fumes or vapors, oxides of carbon

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Steps to be taken in case material is released or spilled:** Small spills - wash to sanitary sewer with plenty of water. Large spills - confine spill, soak up with approved absorbent, shovel product into approved container; for spills in excess of allowable limits (RQ) notify the National Response Center (800) 424 - 8802; refer to SARA Title III, Section 313 40 CFR 372, and CERCLA 40 CFR 302 for complete regulations concerning reporting requirements.

## SECTION 7 – HANDLING AND STORAGE

**Precautions to be taken in handling and storage:** Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures. Keep this and other chemicals out of reach of children.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiratory Protection:** None required; however, if misting occurs, NIOSH approved respirator capable of removing particulate from air must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations.

Note: Ethylene glycol has an ACGIH recommended ceiling (TLV) of 100mg/m<sup>3</sup> (aerosol only). OSHA recommends a PEL ceiling of 50ppm.

**Protective Gloves:** Recommended for general protection

**Eye Protection:** Chemical splash goggles. Refer to 29 CFR 1910.133 or European Standard EN166.

**Other Protective Clothing or Equipment:** Safety eyewash station nearby

**Work/Hygienic Practices:** Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.



# MATERIAL SAFETY DATA SHEET

Page 3 of 4

PRODUCT NAME: ASTEC #900

July 15, 2013

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### Appearance and Odor

White viscous liquid, slight characteristic acrylic odor

### pH

9.0 - 9.8

### Boiling Point/ Boiling Range

212° F (100° C)

### Flash Point

Non-flammable

### Flammable Limits

LEL: Not applicable UEL: Not applicable

### Autoignition Temperature

Not determined

### Vapor Pressure

17 mm HG @ 20° C

### Specific Gravity (Water = 1)

1.190

### Solubility in Water

Partially soluble

### Viscosity

Not specified

### Volatile Organic Compounds (VOC's)

11.9 g/l

### Vapor Density (Air = 1)

< 1

### Evaporation Rate (Water = 1)

< 1

## SECTION 10 – STABILITY AND REACTIVITY

### Stability

STABLE: (x)

UNSTABLE: ( )

### Conditions to Avoid

Extreme temperatures

**Incompatibility (Materials to Avoid):** Strong oxidizers, strong acids

**Hazardous Decomposition or Byproducts:** Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes or vapors, and smoke may be produced.

### Hazardous Polymerization

MAY OCCUR: ( )

WILL NOT OCCUR: (x)

### Conditions to Avoid

None

## SECTION 11 – TOXICOLOGICAL INFORMATION

Hazardous Components	CAS # EINECS #	LD50 of INGREDIENT (Specify Species and Route)	LC50 OF INGREDIENT (Specify Species and Route)
Titanium dioxide	13463-67-7 236-675-5	Not established	6820 mg/m <sup>3</sup> Inhalation - rat
Ethylene glycol	107-21-1 203-473-3	4700 mg/kg Oral - rat	Not established
Zinc oxide	1314-13-2 215-222-5	7950 mg/kg Oral - mouse	2500 mg/m <sup>3</sup> Inhalation - mouse

## SECTION 12 – ECOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

## SECTION 13 – DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHODS:** Dispose of in accordance with Local, State, and Federal Regulations. Product is classified as non-hazardous, however, non-hazardous materials may become hazardous waste upon contact with other products. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. According to the European Waste Catalogue, waste codes are application specific and should be assigned by the user based on the application for which the product is used.

## SECTION 14 – TRANSPORT INFORMATION

PROPER SHIPPING NAME: Non-Hazardous for Transport

DOT HAZARD CLASS/Packaging Group: Not regulated

REFERENCE: Not applicable

UN/NA IDENTIFICATION NUMBER: None

LABEL: None required

HAZARD SYMBOLS: None

IATA HAZARD CLASS/Packaging Group: Not regulated

IMDG HAZARD CLASS: Not regulated

RID/ADR Dangerous Goods Code: Not regulated

UN TDG Class/Packaging Group: Not regulated

Hazard Identification Number (HIN): None

**NOTE:** Transportation information provided is for reference only. Client is urged to consult CFR49 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

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PRODUCT NAME: ASTEC #900

July 15, 2013

## SECTION 15 – REGULATORY INFORMATION

### TSCA (USA – Toxic Substance Control Act)

All components of this product are listed on the US Toxic Substances Control Act chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Polymer Exemption has been granted in accordance with 40CFR 723.50.

### SARA TITLE III (USA – Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories  
Immediate Health

313 Reportable Ingredients  
Ethylene Glycol

### CERCLA (USA – Comprehensive Response and Liability Act)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ for this mixture > 24,000 lbs) or greater amounts, according to 40 CFR 302.

### California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

There are no chemicals present known to the state of California to cause cancer or reproductive toxicity.

### 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 the information required by the Controlled Products Regulations.  
WHMIS Classification: D2B

### IDL (Canadian Ingredient Disclosure List)

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 2.

### DSL/NDL (Canadian Domestic Substances List/Non-Domestic Substances List)

Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

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

Components of this product identified by CAS numbers are on the European Inventory of Commercial Chemical Substances.

**WGK Water Quality Index:** 1

**VbK Index:** Not applicable

## SECTION 16 – OTHER INFORMATION

### HMIS Hazard Ratings

HEALTH	1	* = Chronic Health Hazard	2 = MODERATE
FLAMMABILITY	0	0 = INSIGNIFICANT	3 = HIGH
PHYSICAL HAZARD	0	1 = SLIGHT	4 = EXTREME
PHYSICAL PROTECTIVE EQUIPMENT	B	Safety Glasses, Gloves	

### Revision Statement

This MSDS has been reformatted.

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.

# Safety Data Sheet

## BOSS® 370 HVAC Silicone Sealant

### Section 1. Identification

Product Identifier	BOSS® 370 HVAC Silicone Sealant		
Synonyms	02260CL10; 02260WH10; 02260BK10; 02260AL10		
Manufacture Stock Numbers	N/A		
Recommended use	Refer to Technical Data		
Uses advised against	Refer to Technical Data		
Manufacturer Contact			
Address	SOUDAL Accumetric 350 Ring Road Elizabethtown, KY, 42701 USA		
	Phone	Emergency Phone	Fax
	(270) 769-3385	(800) 424-9300 Chemtrec	N/A

### Section 2. Hazards Identification

Classification	N/A
Signal Word	
Pictogram	
Hazard Statements	N/A
Precautionary Statements	
Response	N/A
Prevention	Use only outdoors or in a well-ventilated area.
Storage	N/A
Disposal	N/A
Ingredients of unknown toxicity	0%
Hazards not Otherwise Classified	Not a hazardous substance or mixture.

## Section 3. Ingredients

CAS	Ingredient Name	Weight %
64742-46-7	Distillates (petroleum), hydrotreated middle	20% - 30%
7631-86-9	Amorphous silica	5% - 10%

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid Measures

Eye Contact	Rinse with water for 15 minutes. Obtain medical attention.
Skin Contact	Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get medical attention if irritation or other ill effects develop or persist.
Inhalation	Material is not likely to present an inhalation hazard at ambient conditions. If material is heated or vapor are generated, care should be taken to prevent inhalation. In case of exposure to vapor, move to fresh air.
Ingestion	Get immediate medical attention. Only induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person.
Comments	Treat according to person's condition and specifics of exposure.

## Section 5. Fire Fighting Measures

Suitable Extinguishing Media	N/A
Unsuitable Extinguishing Media	N/A
Auto-ignition Temperature	Not determined
Extinguishing Media	On large fires use dry chemical, foam, or water spray. On small fires use carbon dioxide, dry chemical or water spray. Water can be used to cool fire exposed containers.
Flammability Limits in Air	Not determined
Special Fire Fighting Procedures	Self-contained breathing apparatus and protective clothing should be worn when fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire or Explosion Hazards	None known
Hazardous Decomposition Products	Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: Carbon oxides and traces of incompletely burned carbon compounds Formaldehyde Silicon dioxide Depending on color, may also evolve: Metal oxides

## Section 6. Accidental Release Measures

### Steps to be taken in case of spill or release

Observe all personal protection equipment recommendations. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

## Section 7. Handling and Storage

### Handling

Use adequate ventilation. Product evolves acetic acid when exposed to water or humid air. Provide ventilation during use to control acetic acid within exposure guidelines or use respiratory protection. Avoid eye contact. Avoid skin contact. Avoid breathing vapors, mist, dust or fumes. Keep container closed. Do not take internally.

### Storage

Use reasonable care and store away from oxidizing materials. Keep container closed and store away from water or moisture. This material in its finely divided form presents an explosion hazard. Follow NFPA 654 (for chemical dusts) or 484 (for metal dusts) as appropriate for managing dust hazards to minimize secondary explosion potential.



## Section 8. Exposure Controls/Personal Protection

### Occupational Exposure Limits

Ingredient Name	ACGIH TLV	OSHA PEL	STEL
Distillates (petroleum), hydrotreated middle	10 mg/m3	6 mg/m3	Not Est.
Amorphous silica	5 mg/m3	5 mg/m3	10 mg/m3

### Personal Protective Equipment

Goggles, Gloves

### Exposure Controls

Acetic acid is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 10 ppm and ACGIH TLV: TWA 10 ppm, STEL 15 ppm.

### Engineering Controls

Local Ventilation: Recommended General Ventilation: Recommended

### Eye Protection

Safety goggles or glasses with side shields are recommended.

### Skin Protection

Wash at mealtimes and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended. Suitable Gloves: Handle in accordance with good industrial hygiene and safety practices.

### Respiratory Protection

Use respiratory protection unless adequate exhaust ventilation is provided or exposure assessment demonstrates that exposures are within exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls. Suitable Respirator: Respiratory protection is not needed under ambient conditions. If vapor/mist/dust/fumes are generated when material is heated or handled, respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirator. Protection provided by air purifying respirators against exposure to any hazardous chemical limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure level are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

### Precautionary Measures

Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust or fumes. Keep container closed. Do not take internally. Use reasonable care.

### Comment

Product evolves acetic acid when exposed to water or humid air. Provide ventilation during use to control acetic acid within exposure guidelines or use respiratory protection. When heated to temperatures above 150C (300F) in the presence of air, product can form formaldehyde vapors. Physical and health hazard information is readily available on the Material Safety Data Sheet.

### Note

These precautions are for room temperature handling. Use at elevated temperatures or aerosol/spray applications may require added precautions.

## Section 9. Physical and Chemical Properties

Physical State	Paste
Color	Various
Odor	Acetic Acid Odor
Odor Threshold	N/A
Solubility	Not Determined
Partition coefficient Water/n-octanol	N/A
Viscosity	Not Determined
Specific Gravity	0.96
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	Not Applicable
FP Method	N/A
Ph	Not Determined
Melting Point	Not Determined
Boiling Point	Not Determined
Boiling Range	N/A
LEL	N/A
UEL	N/A
Evaporation Rate	Not Determined
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	Not Determined
Vapor Density	Not Determined

NoteThe above information is not intended for use in preparing product specifications. Contact SOUDAL Accumentric before writing specifications.

## Section 10. Stability and Reactivity

Conditions to Avoid	None known
Hazardous Polymerization	Will not occur
Chemical Stability	Stable
Materials to Avoid / Incompatibility	Oxidizing material can cause a reaction. Water, moisture or humid air can cause hazardous vapors to form as described in Section 8.

## Section 11. Toxicological Information

Special Hazard  
Information on  
Components

No known applicable information.

## Section 12. Ecological Information

Environmental Effects Complete information is not yet available.

Environmental Fate and Distribution Complete information is not yet available.

Fate and Effects in Waste Water Treatment Plants Complete information is not yet available.

## Section 13. Disposal

Waste Disposal Method We make no guarantee or warranty of any kind that the use or disposal of this product complies with all local, state, or federal laws. It is also the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable statutes. This product is not known to be regulated under RCRA regulations. Disposal of unused portions of this product and process waste containing this product should be done only after a careful evaluation and in compliance with all federal, local and state laws.

## Section 14. Transport Information

UN Number	N/A
UN Proper Shipping Name	N/A
DOT Classification	N/A
Packing Group	N/A

Ocean Shipment (IMDG)

Not subject to IMDG code.

Road Shipment  
Information (DOT)

Not subject to DOT regulations.

Air Shipment (IATA)

Not subject to IATA regulations.

## Section 15. Regulatory Information

	The contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.
TSCA Status	All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.
SARA Title III Section 302 Extremely Hazardous Substances	None
SARA Title III Section 304 CERCLA Substances dangereuses	None
SARA Title III Section 312 Hazard Class	Acute: Yes Chronic: No Fire: No Pressure: No Reactive: No
SARA Title III Section 313 Toxic Chemicals	None present or none present in regulated quantities.
Note	Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.
California Proposition 65	This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm: None known
Massachusetts	Silica, amorphous (7631-86-9) Depending on color, may also contain: Titanium dioxide (13463-67-7)
New Jersey	Dimethyl siloxane, hydroxy-terminated (70131-67-8) Ethyltriacetoxysilane (17689-77-9) Hydrotreated medium petroleum distillates (64742-46-7) Methyltriacetoxysilane (4253-34-3) Silica, amorphous (7631-86-9) Depending on color, may also contain: Carbon black (1333-86-4) Titanium dioxide (13463-67-7)
Pennsylvania	Dimethyl siloxane, hydroxy-terminated (70131-67-8) Hydrotreated medium petroleum distillates (64742-46-7) Silica, amorphous (7631-86-9) Depending on color, may also contain: Titanium dioxide (13463-67-7)

## Section 16. Other Information

Revision Date	2/10/2015
Disclaimer	The data contained herein is based upon information that Soudal Accumetric believes to be reliable. Users of this product have the responsibility to determine that suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements or suggestions are made without warranty, expressed or implied, regarding the accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.

# Safety Data Sheet

## BOSS™ 380 Contractor's Silicone Sealant

### Section 1. Identification

Product Identifier	BOSS™ 380 Contractor's Silicone Sealant		
Synonyms	02142CL10; 02142WH10; 02142BK10; 02142AL10; 02142BZ10; 02142AM10; 02142BW10; 03336CL01; 02142CW10; 02142GR10; 02142MH10; 02142TN10; 02142TW10		
Manufacture Stock Numbers	N/A		
Recommended use	Refer to Technical Data		
Uses advised against	Refer to Technical Data		
Manufacturer Contact Address	SOUDAL Accumetric 350 Ring Road Elizabethtown, KY, 42701 USA		
	Phone	Emergency Phone	Fax
	(270) 769-3385	(800) 424-9300 Chemtrec	N/A

### Section 2. Hazards Identification

Classification	N/A
Signal Word	
Pictogram	
Hazard Statements	N/A
Precautionary Statements	
Response	N/A
Prevention	Use only outdoors or in a well-ventilated area.
Storage	N/A
Disposal	N/A
Ingredients of unknown toxicity	0%
Hazards not Otherwise Classified	Not a hazardous substance or mixture.

## Section 3. Ingredients

CAS	Ingredient Name	Weight %
64742-46-7	Distillates (petroleum), hydrotreated middle	20% - 30%
7631-86-9	Amorphous silica	5% - 10%

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid Measures

Eye Contact	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes while holding the eyelids(s) open. If contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into the unaffected eye or unto the face. Immediately obtain medical attention.
Skin Contact	Remove contaminated clothing, shoes, and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Flush with lukewarm gently flowing water for 15 minutes. If irritation persists, repeat flushing. If irritation persists, obtain medical advice.
Inhalation	If symptoms are experienced remove source of contamination or move victim to fresh air. If irritation persists, obtain medical advice.
Ingestion	If irritation or discomfort occur, obtain medical advice.
Comments	Treat according to person's condition and specifics of exposure.

## Section 5. Fire Fighting Measures

Suitable Extinguishing Media	N/A
Unsuitable Extinguishing Media	N/A
Auto-ignition Temperature	Not determined
Flammability Limits in Air	Not determined
Extinguishing Media	On large fires use dry chemical, foam, or water spray. On small fires use carbon dioxide, dry chemical or water spray. Water can be used to cool fire exposed containers.
Special Fire Fighting Procedures	Self-contained breathing apparatus and protective clothing should be worn when fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire or Explosion Hazards	None known
Hazardous Decomposition Products	Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: Carbon oxides and traces of incompletely burned carbon compounds Formaldehyde Silicon dioxide Depending on color, may also evolve: Metal oxides

## Section 6. Accidental Release Measures

### Steps to be taken in case of spill or release

Observe all personal protection equipment recommendations. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

## Section 7. Handling and Storage

### Handling

Use with adequate ventilation. Product evolves acetic acid when exposed to water or humid air. Provide ventilation during use to acetic acid within exposure guidelines or use respiratory protection. Avoid eye contact. Avoid skin contact. Avoid breathing vapor. Keep container closed.

### Storage

Use reasonable care and store away from oxidizing materials. Keep container closed and store away from water or moisture. This material in its finely divided form presents an explosion hazard. Follow NFPA 654 (for chemical dusts) or 484 (for metal dusts) as appropriate for managing dust hazards to minimize secondary explosion potential.



## Section 8. Exposure Controls/Personal Protection

### Occupational Exposure Limits

Ingredient Name	ACGIH TLV	OSHA PEL	STEL
Distillates (petroleum), hydrotreated middle	10 mg/m3	6 mg/m3	Not Est.
Amorphous silica	5 mg/m3	5 mg/m3	10 mg/m3

### Personal Protective Equipment

Goggles, Gloves

### Exposure Controls

Acetic acid is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 10 ppm and ACGIH TLV: TWA 10 ppm, STEL 15 ppm.

### Engineering Controls

Local Ventilation: Recommended General Ventilation: Recommended

### Eye Protection

Safety goggles or glasses with side shields are recommended.

### Skin Protection

Wash at mealtime and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended. Suitable Gloves: Avoid skin contact by implementing good industrial hygiene practices and procedures. Select and use gloves and/or protective clothing to further minimize the potential for skin contact. Consult with your glove and/or personnel protective equipment manufacturer for selection of appropriate compatible materials.

### Respiratory Protection

Use respiratory protection unless adequate exhaust ventilation is provided or exposure assessment demonstrates that exposures are within exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls. Suitable Respirator: Respiratory protection is not needed under ambient conditions. If vapor are generated when material is heated or handled, the following is advised. General or local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirator.

### Comment

Product evolves acetic acid when exposed to water or humid air. Provide ventilation during use to control acetic acid within exposure guidelines or use respiratory protection. When heated to temperatures above 150C (300F) in the presence of air, product can form formaldehyde vapors. Physical and health hazard information is readily available on the Material Safety Data Sheet.

### Precautionary Measures

Avoid eye contact. Avoid skin contact. Avoid breathing vapor. Keep container closed. Use reasonable care.

### Note

These precautions are for room temperature handling. Use at elevated temperatures or aerosol/spray applications may require added precautions.

## Section 9. Physical and Chemical Properties

Physical State	Paste
Color	Various
Odor	Acetic Acid Odor
Odor Threshold	N/A
Solubility	Not Determined
Partition coefficient Water/n-octanol	N/A
Viscosity	Not Determined
Specific Gravity	0.96
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	Not Applicable
FP Method	N/A
Ph	Not Determined
Melting Point	Not Determined
Boiling Point	Not Determined
Boiling Range	N/A
LEL	N/A
UEL	N/A
Evaporation Rate	Not Determined
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	Not Determined
Vapor Density	Not Determined

Note The above information is not intended for use in preparing product specifications. Contact SOUDAL Accumentric before writing specifications.

## Section 10. Stability and Reactivity

Conditions to Avoid	None known
Hazardous Polymerization	Will not occur
Chemical Stability	Stable
Materials to Avoid / Incompatibility	Oxidizing material can cause a reaction. Water, moisture or humid air can cause hazardous vapors to form as described in Section 8.

## Section 11. Toxicological Information

Special Hazard  
Information on  
Components

No known applicable information.

## Section 12. Ecological Information

Environmental Effects Complete information is not yet available.

Environmental Fate and Distribution Complete information is not yet available.

Fate and Effects in Waste Water Treatment Plants Complete information is not yet available.

## Section 13. Disposal

Waste Disposal Method We make no guarantee or warranty of any kind that the use or disposal of this product complies with all local, state, or federal laws. It is also the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable statutes. This product is not known to be regulated under RCRA regulations. Disposal of unused portions of this product and process waste containing this product should be done only after a careful evaluation and in compliance with all federal, local and state laws.

## Section 14. Transport Information

UN Number	N/A
UN Proper Shipping Name	N/A
DOT Classification	N/A
Packing Group	N/A

Ocean Shipment (IMDG)

Not subject to IMDG code.

Road Shipment  
Information (DOT)

Not subject to DOT regulations.

Air Shipment (IATA)

Not subject to IATA regulations.

## Section 15. Regulatory Information

	The contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.
TSCA Status	All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.
SARA Title III Section 302 Extremely Hazardous Substances	None
SARA Title III Section 304 CERCLA Substances dangereuses	None
SARA Title III Section 312 Hazard Class	Acute: Yes Chronic: No Fire: No Pressure: No Reactive: No
SARA Title III Section 313 Toxic Chemicals	None present or none present in regulated quantities.
Note	Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.
California Proposition 65	This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm: None known
Massachusetts	Silica, amorphous (7631-86-9) Depending on color, may also contain: Titanium dioxide (13463-67-7)
New Jersey	Dimethyl siloxane, hydroxy-terminated (70131-67-8) Ethyltriacetoxysilane (17689-77-9) Hydrotreated medium petroleum distillates (64742-46-7) Methyltriacetoxysilane (4253-34-3) Silica, amorphous (7631-86-9) Depending on color, may also contain: Carbon black (1333-86-4) Titanium dioxide (13463-67-7)
Pennsylvania	Dimethyl siloxane, hydroxy-terminated (70131-67-8) Hydrotreated medium petroleum distillates (64742-46-7) Silica, amorphous (7631-86-9) Depending on color, may also contain: Titanium dioxide (13463-67-7)

## Section 16. Other Information

Revision Date	2/10/2015
Disclaimer	The data contained herein is based upon information that Soudal Accumetric believes to be reliable. Users of this product have the responsibility to determine that suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements or suggestions are made without warranty, expressed or implied, regarding the accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.



## Safety Data Sheet



### Section 1: Identification

#### Product identifier

##### Product Name

- **OEM/Mechanical - CT10101-5**

##### Synonyms

- Commercial Blanket Insulation; HT Blanket; CertaPro™ Board; Crimp Wrap™; Insulation for Flex Duct; Metal Building Insulation 202-96; Canadian Metal Building Insulation; Soft Touch™ Duct Wrap; Quickwrap Ductwrap; Marine Ductwrap; ToughGard® Duct Board; ToughGard® BMC Liner Board; ToughGard® R Duct Liner (1/2"); ToughGard® Rigid Liner Board; ToughGard® T Duct Liner; Ultra\* Duct™ Black Duct Board; ToughGard® Ultra\*Round Spiral Duct Liner; Universal Blanket

##### Product Code

- 30-36-045

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

##### Recommended use

- Acoustical & Thermal Insulation

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

##### Manufacturer

- CertainTeed Corporation  
P.O. Box 860  
Valley Forge, PA 19482-0101  
United States  
www.certainteed.com  
CertainTeed - EHS@saint-gobain.com

Telephone (General) • 610-341-7000

Telephone (Technical) • (610) 341-7000 - 9 AM – 5 PM (Eastern Time – USA)

Telephone (General) • (800) 274-8530 - Main Number

#### Emergency telephone number

##### Manufacturer

- 800-527-3887

##### Manufacturer

- (800) 424-9300 - Chemtrec

##### Manufacturer

- (703) 527-3887 - Outside of the U.S. Chemtrec

#### Key to abbreviations

‡ = HMIS is a registered trademark of the American Coatings Association

### Section 2: Hazard Identification

#### United States (US)

According to OSHA 29 CFR 1910.1200 HCS

#### Classification of the substance or mixture

##### OSHA HCS 2012

- Carcinogenicity 2 - H351

#### Label elements

## OSHA HCS 2012

**WARNING**

**Hazard statements** • Suspected of causing cancer. - H351

**Precautionary statements**

**Prevention** • Obtain special instructions before use. - P201  
Do not handle until all safety precautions have been read and understood. - P202  
Wear protective gloves/protective clothing/eye protection/face protection. - P280

**Response** • IF exposed or concerned: Get medical advice/attention. - P308+P313

**Storage/Disposal** • Store locked up. - P405  
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

**Other hazards**

## OSHA HCS 2012

- Under United States Regulations (29 CFR 1900.1200 - Hazard Communication Standard) this product is considered Hazardous.

**Canada**

## According to WHMIS

**Classification of the substance or mixture**

## WHMIS

- Other Toxic Effects - D2A

**Label elements**

## WHMIS



- Other Toxic Effects - D2A

**Other hazards**

## WHMIS

- In Canada, the product mentioned above is considered Hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

## Section 3 - Composition/Information on Ingredients

**Substances**

- Material does not meet the criteria of a substance.

**Mixtures**

Hazardous Components					
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments
Glass, oxide, chemicals	CAS:65997-17-3	60% TO 93%	NDA	OSHA HCS 2012: Data Lacking	See footnote "a"

Phenol, polymer with formaldehyde and urea	CAS:25104-55-6	10% TO 30%	Ingestion/Oral-Rat LD50 • 7 g/kg	OSHA HCS 2012: Data Lacking	See footnote "b"
Cured polymer adhesive	NDA	1% TO 5%	NDA	OSHA HCS 2012: Not Hazardous	See footnote "c"
Acetic acid, vinyl ester, polymer	NDA	0% TO 5%	Ingestion/Oral-Rat LD50 • >25 g/kg	OSHA HCS 2012: Data Lacking	See footnote "d"
Acrylic-based polymer	NDA	0% TO 5%	NDA	OSHA HCS 2012: Data Lacking	See footnote "e"
Antimony oxide (Sb2O3)	CAS:1309-64-4	0% TO 5%	Ingestion/Oral-Rat LD50 • >34 g/kg	OSHA HCS 2012: Carc 2; Eye Irrit 2B	See footnote "f"
Latex textile rubber polymer	NDA	0% TO 5%	NDA	OSHA HCS 2012: Data Lacking	See footnote "g"
Poly(oxy-1,2-ethanedioxydicarbonyl-1,4-phenylenecarbonyl)	NDA	0% TO 5%	NDA	OSHA HCS 2012: Data Lacking	See footnote "h"
Phenolic resin binder (cured)	NDA	< 25%	NDA	OSHA HCS 2012: Data Lacking	See footnote "i"
Hydrocarbon polymer	NDA	< 2%	NDA	OSHA HCS 2012: Data Lacking	See footnote "j"
Carbon Black	CAS:1333-86-4	< 0.04%	Ingestion/Oral-Rat LD50 • >15400 mg/kg	OSHA HCS 2012: Workplace exposure limit	See footnote "k"

**Key to abbreviations**

Contained in: Commercial Blanket Insulation; HT Blanket; CertaPro™ Board (Plain,FSK, ASJ, PSK); Crimp Wrap™ (ASJ, Foil Scrim); Insulation for Flex Duct; Metal Building Insulation 202-96;

a = Canadian Metal Building Insulation; Soft Touch™ Duct Wrap (Plain, FSK, PSK); Quickwrap Ductwrap; Marine Ductwrap; ToughGard® Rigid Liner Board; ToughGard® R Duct Liner (1/2"); Universal Blanket (Plain, FSK); ToughGard® Duct Board; ToughGard® T Duct Liner; ToughGard® Ultra\*Round Spiral Duct Liner; ToughGard® BMC Liner Board

b = Contained in: Commercial Blanket Insulation; HT Blanket; CertaPro™ Board (Plain,FSK, ASJ, PSK); Crimp Wrap™ (ASJ, Foil Scrim); Insulation for Flex Duct; Metal Building Insulation 202-96;

b = Canadian Metal Building Insulation; Soft Touch™ Duct Wrap (Plain, FSK, PSK); Quickwrap Ductwrap; Marine Ductwrap; ToughGard® Rigid Liner Board; ToughGard® R Duct Liner (1/2"); Universal Blanket (Plain, FSK); ToughGard® Duct Board; ToughGard® T Duct Liner; ToughGard® Ultra\*Round Spiral Duct Liner; ToughGard® BMC Liner Board

c = Contained in: ToughGard® BMC Liner Board

d = Contained in: CertaPro™ Board(FSK, ASJ, PSK); ToughGard® Duct Board; ToughGard® Ultra\*Round Spiral Duct Liner

e = Contained in: ToughGard® R Duct Liner (1/2")

f = Contained in: CertaPro™ Board (FSK, ASJ, PSK); Crimp Wrap™ (ASJ); Soft Touch™ Duct Wrap (FSK, PSK); Quickwrap Ductwrap (FSK); Marine Ductwrap (FSK); ToughGard Rigid Liner Board with Enhanced Surface; ToughGard® Rigid Liner Board; ToughGard® R Duct Liner (1/2"); Universal Blanket (FSK); ToughGard® Duct Board; ToughGard® T Duct Liner; ToughGard® Ultra\*Round Spiral Duct Liner

g = Contained in: ToughGard® T Duct Liner

h = Contained in: CertaPro™ Board (ASJ); Crimp Wrap (ASJ); ToughGard® Duct Board; ToughGard® T Duct Liner; ToughGard® Ultra\*Round Spiral Duct Liner

i = Contained in: ToughGard® T

j = Contained in: ToughGard® BMC Liner Board

k = Contained in: ToughGard® BMC Liner Board

See Section 11 for Toxicological Information.

## Section 4: First-Aid Measures

### Description of first aid measures

#### Inhalation

- Remove to fresh air immediately and notify medical personnel and supervisor. Give artificial respiration if victim is not breathing. If breathing is difficult, give oxygen.

#### Skin

- After contact with skin, take off immediately all contaminated clothing and wash immediately with plenty of soap and water. If irritation develops and persists, get medical attention .

#### Eye

- Do not rub or scratch your eyes. Immediately flush eyes with plenty of water for at

least 15 minutes and notify medical personnel and supervisor. If eye irritation persists: Get medical advice/attention.

**Ingestion**

- Consult a physician if unusual reaction is noted. Product is not intended nor is it likely to be ingested or eaten.

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

- Refer to Section 11 - Toxicological Information.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician**

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## Section 5: Fire-Fighting Measures

**Extinguishing media**

**Suitable Extinguishing Media** • Use any media suitable for the surrounding fires.

**Unsuitable Extinguishing Media** • None known.

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

**Unusual Fire and Explosion Hazards** • Does not support combustion. These products contain a cured binder and various facings which contain retardant systems to reduce the possibility of fire. Use of plasma or other type of cutting tool may cause the release of toxic fumes and smoke. Facings on these products may burn. Do not leave facing exposed when working close to an open flame. If burned, the materials could release toxic fumes.

**Hazardous Combustion Products** • Does not support combustion. If burned, the materials could release toxic fumes and smoke. Combustion products may include oxides of carbon, sulfur and other potentially volatile organic compounds, oxides of arsenic, oxides of nitrogen, hydrogen chloride, antimony, bromide gas, hydrogen bromide, formaldehyde, and trace hydrogen cyanide.

**Advice for firefighters**

- Fire fighters should avoid inhaling any combustion products. Fire fighters should wear full-face, self contained breathing apparatus and impervious protective clothing.

## Section 6 - Accidental Release Measures

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

**Personal Precautions** • Avoid contact with skin and eyes during clean-up. Take proper precautions to minimize exposure by using appropriate personal protective equipment.

**Emergency Procedures** • Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed. Ventilate the contaminated area.

**Environmental precautions**

- Avoid run off to waterways and sewers.

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

**Containment/Clean-up Measures** • Containment of this material should not be necessary. Remove sources of ignition. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Avoid the generation of dusts during clean-up.

## Section 7 - Handling and Storage



## Precautions for safe handling

### Handling

- Do not breathe dust from this material. Keep this product from heat, sparks, or open flame. Use this product with adequate ventilation. Always wash work clothes separately from other clothing. Wipe out the washer or sink to prevent loose glass fibers from getting on other clothing. Wash thoroughly after handling. Use personal protective equipment as described in Section 8.

## Conditions for safe storage, including any incompatibilities

### Storage

- Store in a dry place and under cover to protect product.

### Incompatible Materials or Ignition Sources

- Hydrofluoric acid.

## Section 8 - Exposure Controls/Personal Protection

### Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories
Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds	TWAs	0.5 mg/m <sup>3</sup> TWA (as Sb) <i>as Antimony compounds</i>	production, exposure by all routes should be carefully controlled to levels as low as possible	0.5 mg/m <sup>3</sup> TWA (as Sb) <i>as Antimony compounds</i>	0.5 mg/m <sup>3</sup> TWA (as Sb) <i>as Antimony compounds</i>	0.5 mg/m <sup>3</sup> TWA (production, handling and use, as Sb)
	STELs	Not established	Not established	Not established	Not established	1.5 mg/m <sup>3</sup> STEL (production, handling and use, as Sb)
Carbon Black (1333-86-4)	TWAs	3 mg/m <sup>3</sup> TWA (inhalable fraction)	3 mg/m <sup>3</sup> TWA (inhalable)	3 mg/m <sup>3</sup> TWA (inhalable fraction)	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA
	STELs	Not established	Not established	Not established	Not established	7 mg/m <sup>3</sup> STEL
Glass, oxide, chemicals as Glass wool fiber	TWAs	1 fiber/cm <sup>3</sup> TWA (respirable fibers: length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination, listed under Synthetic vitreous fibers) <i>as Glass wool fiber</i>	1 fibre/cm <sup>3</sup> TWA (fibres >5 µm, with an aspect ratio of ≥3:1, as determined by the membrane filter method at 400-450 times magnification (4 mm objective), using phase-contrast illumination, listed under Synthetic vitreous fibres) <i>as Glass wool fiber</i>	1 fiber/cm <sup>3</sup> TWA (respirable fibers: length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination, listed under Synthetic vitreous fibers) <i>as Glass wool fiber</i>	1 fibre/cm <sup>3</sup> TWA (fibres >5 µm with a diameter <3 µm, aspect ratio >5:1) <i>as Glass wool fiber</i>	3 fibre/cm <sup>3</sup> TWA (with a diameter ≤3.5 µm and a length ≥10 µm); 5 mg/m <sup>3</sup> TWA (total mass) <i>as Glass wool fiber</i>
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Yukon
Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds	TWAs	0.5 mg/m <sup>3</sup> TWA (as Sb) <i>as Antimony compounds</i>	0.5 mg/m <sup>3</sup> TWA (production, handling and use, as Sb)	exposure by all routes should be carefully controlled to levels as low as possible	0.5 mg/m <sup>3</sup> TWAEV (as Sb)	0.5 mg/m <sup>3</sup> TWA (as Sb) <i>as Antimony compounds</i>
			1.5 mg/m <sup>3</sup> STEL			0.75 mg/m <sup>3</sup> STEL (as Sb)

	STELs	Not established	(production, handling and use, as Sb)	Not established	Not established	as Antimony compounds
Carbon Black (1333-86-4)	TWAs	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3.5 mg/m3 TWAEV	3.5 mg/m3 TWA
	STELs	Not established	7 mg/m3 STEL	Not established	Not established	7 mg/m3 STEL
Glass, oxide, chemicals as Glass wool fiber	TWAs	1 fiber/cm3 TWA (respirable fibers: length >5 µm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination, listed under Synthetic vitreous fibers)  as Glass wool fiber	3 fibre/cm3 TWA (with a diameter <=3.5 µm and a length >=10 µm); 5 mg/m3 TWA (total mass)  as Glass wool fiber	1 fibre/cm3 TWA (length >5 µm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450 times magnification (4-mm objective), using phase-contrast illumination, respirable, listed under Synthetic Vitreous Fibres (Man Made Mineral Fibres))  as Glass wool fiber	1 fibre/cm3 TWAEV (respirable, listed under Fibres - Artificial vitreous mineral fibres)  as Glass wool fiber	30 mppcf TWA; 10 mg/m3 TWA (respirable mass)  as Glass wool fiber

### Exposure Limits/Guidelines (Con't.)

	Result	Mexico	NIOSH	OSHA
Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds	TWAs	0.5 mg/m3 TWA LMPE-PPT (handling and use, as Sb); 1 mg/m3 TWA LMPE-PPT (production)	0.5 mg/m3 TWA (as Sb)  as Antimony compounds	0.5 mg/m3 TWA (as Sb)  as Antimony compounds
Carbon Black (1333-86-4)	STELs	7 mg/m3 STEL [LMPE-CT]	Not established	Not established
	TWAs	3.5 mg/m3 TWA LMPE-PPT	3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m3 TWA
Glass, oxide, chemicals	TWAs	Not established	3 fiber/cm3 TWA (fibers <= 3.5 µm in diameter and >= 10 µm in length); 5 mg/m3 TWA (total)  as Glass wool fiber	Not established

## Exposure controls

### Engineering Measures/Controls

- Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces. Avoid spread of fiber glass dust.

### Personal Protective Equipment

#### Respiratory

- A properly fitted NIOSH approved N 95 series disposable dust respirator such as a 3M Brand #8210, #8511, #8233 or equivalent, in high humidity environments should be used when: high dust levels are encountered; the level of glass fibers in the air exceeds the occupational exposure limits; or if irritation occurs.

#### Eye/Face

- Safety glasses with side shields should be worn at a minimum. In dusty environments chemical goggles should be worn.

#### Skin/Body

- Work clothing sufficient to prevent all skin contact should be worn, such as coveralls,

**General Industrial Hygiene Considerations****Environmental Exposure Controls**

long sleeves and cap.

- Use good industrial hygiene practices in handling this material. Availability of eye wash fountains are recommended. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.
- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

**Key to abbreviations**

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

## Section 9 - Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Yellow solid with a faint resin odor.
Color	Yellow or black.	Odor	Faint resin odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	> 2550 F(> 1398.8889 C)	Melting Point	2550 F(1398.8889 C)
Decomposition Temperature	Data lacking	pH	Data lacking
Bulk Density	8 lb(s)/ft <sup>3</sup>	Water Solubility	Slightly Soluble
Viscosity	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

## Section 10: Stability and Reactivity

**Reactivity**

- No dangerous reaction known under conditions of normal use.

**Chemical stability**

- Stable under normal conditions of use.

**Possibility of hazardous reactions**

- Hazardous polymerization not indicated.

**Conditions to avoid**

- Keep away from heat, ignition sources and incompatible materials.

## Incompatible materials

- Hydrofluoric acid.

## Hazardous decomposition products

- Hazardous decomposition products may include oxides of carbon, sulfur and other potentially volatile organic compounds, oxides of arsenic, oxides of nitrogen, hydrogen chloride, antimony, bromine gas, hydrogen bromide, formaldehyde, and trace hydrogen cyanide.

## Section 11 - Toxicological Information

### Information on toxicological effects

Component Name	CAS	Data
Phenol, polymer with formaldehyde and urea (10% TO 30%)	25104-55-6	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 7 g/kg
Acetic acid, vinyl ester, polymer (0% TO 5%)	9003-20-7	<b>Acute Toxicity:</b> orl-rat LD50:>25 gm/kg
Antimony oxide (Sb2O3) (0% TO 5%)	1309-64-4	<b>Acute Toxicity:</b> orl-rat LD50:>34 gm/kg; <b>Irritation:</b> eye-rbt 100 mg MLD

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	OSHA HCS 2012 • Carcinogenicity 2
Germ Cell Mutagenicity	OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	OSHA HCS 2012 • Classification criteria not met
Skin sensitization	OSHA HCS 2012 • Classification criteria not met
STOT-RE	OSHA HCS 2012 • Classification criteria not met
STOT-SE	OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met

### Route(s) of entry/exposure

- Inhalation, Skin, Eye, and Ingestion

### Medical Conditions Aggravated by Exposure

- Pre-existing conditions which may be aggravated by mechanical irritants upon inhalation or skin contact.

### Potential Health Effects

#### Inhalation

##### Acute (Immediate)

- Temporary irritation of nose and throat may occur.

##### Chronic (Delayed)

- Use of these products has not been shown to cause cancer in humans. Fiber glass wool is a possible cancer hazard. Fiber glass wool has caused cancer in animals but has not produced cancer by inhalation in humans.

#### Skin

##### Acute (Immediate)

- Temporary irritation of the skin may occur in some individuals.

##### Chronic (Delayed)

- No data available.

#### Eye

##### Acute (Immediate)

- Temporary irritation or redness may occur.

##### Chronic (Delayed)

- No data available.

## Ingestion

### Acute (Immediate)

### Chronic (Delayed)

## Carcinogenic Effects

- Ingestion of this product unlikely.
- No data available
- This product contains antimony trioxide which may cause cancer based on sufficient animal data. This product contains glass wool insulation fibers. Following a thorough review of all the medical-scientific data available at a meeting in October 2001, the IARC panel lowered the classification for glass wool insulation fibers from a Group 2B classification ("possibly carcinogenic to humans") to a Group 3 classification ("not classifiable as to carcinogenicity to humans"). According to IARC, there is "no evidence of increased risks of lung cancer or of mesothelioma from occupational exposures during manufacturing of these materials, and inadequate evidence overall of any cancer risk." U.S., California and international authorities have all agreed that biosoluble and inhalable glass fibers should not be labeled as a possible cancer hazard. The U.S. National Toxicology Program ("NTP") and the California Office of Environmental Health Hazard Assessment ("OEHHA") actions mean that a cancer warning label for biosoluble fiber glass is no longer required under Federal or California Law.

Carcinogenic Effects			
	CAS	IARC	NTP
Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	Group 2B-Possible Carcinogen	Not established
Glass, oxide, chemicals as Glass wool fiber	NDA	Group 3-Not Classifiable	Reasonably Anticipated to be Human Carcinogen

### Key to abbreviations

LD = Lethal Dose

MLD = Mild

## Section 12 - Ecological Information

## Toxicity

- Binder-coated fiber glass is hydrophobic, therefore, no adverse environmental effects would be expected if this product were accidentally released in the water or soil. No harm to fish or wildlife would be caused by this product.

## Persistence and degradability

- No information available for the product.

## Bioaccumulative potential

- No information available for the product.

## Mobility in Soil

- No information available for the product.

## Other adverse effects

### Potential Environmental Effects

- No environmental effects expected.

## Section 13 - Disposal Considerations

## Waste treatment methods

### Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Packaging waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

**Special precautions for user** • None known.

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

## Section 15 - Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

**SARA Hazard Classifications** • Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Glass, oxide, chemicals	65997-17-3	Yes	No	Yes
Phenol, polymer with formaldehyde and urea	25104-55-6	No	No	No
Cured polymer adhesive	NDA	No	No	No
Acetic acid, vinyl ester, polymer	9003-20-7	No	No	No
Acrylic-based polymer	NDA	No	No	No
Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	Yes	Yes Yes	Yes Yes
Latex textile rubber polymer	NDA	No	No	No
Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	No	No	No
Phenolic resin binder (cured)	NDA	No	No	No
Hydrocarbon polymer	NDA	No	No	No
Carbon Black	1333-86-4	Yes	Yes	Yes

Inventory				
Component	CAS	Canada DSL	Canada NDSL	TSCA
Glass, oxide, chemicals	65997-17-3	Yes	No	Yes
Phenol, polymer with formaldehyde and urea	25104-55-6	Yes	No	Yes
Cured polymer adhesive	NDA	No	No	No
Acetic acid, vinyl ester, polymer	9003-20-7	Yes	No	Yes
Acrylic-based polymer	NDA	No	No	No
Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	Yes	No	Yes
Latex textile rubber polymer	NDA	No	No	No
Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	Yes	No	Yes
Phenolic resin binder (cured)	NDA	No	No	No
Hydrocarbon polymer	NDA	No	No	No
Carbon Black	1333-86-4	Yes	No	Yes

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Uncontrolled product according to WHMIS classification criteria (listed under Glass wool); D2A (listed under Mineral wool fiber)
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Carbon Black, non-respirable on Health Canada's WHMIS Division website.)
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	D2A
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### Canada - WHMIS - Ingredient Disclosure List

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	1 %
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	1 %
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	1 %
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**Environment****Canada - 2004 NPRI (National Pollutant Release Inventory)**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	Part 1, Group 1 Substance
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**Canada - 2005 NPRI (National Pollutant Release Inventory)**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	Part 1, Group 1 Substance
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**Canada - CEPA - Priority Substances List**



• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

## Canada British Columbia

### Environment

#### Canada - British Columbia - Ozone Depleting Substances

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

## Canada Manitoba

### Environment

#### Canada - Manitoba - Ozone Depleting Substances and Other Halocarbons - Class 1

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### Canada - Manitoba - Ozone Depleting Substances and Other Halocarbons - Class 2

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed

• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

## Canada Nova Scotia

### Environment

#### Canada - Nova Scotia - Ozone Layer Protection Regulations

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

## Canada Ontario

### Environment

#### Canada - Ontario - Airborne Contaminant Reporting - Table 2A

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### Canada - Ontario - Airborne Contaminant Reporting - Table 2B

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### Canada - Ontario - Ozone Depleting Substances and Other Halocarbons - Class 1 Substances

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanedioxydicarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### Canada - Ontario - Ozone Depleting Substances and Other Halocarbons - Class 2 Substances

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanedioxydicarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### Canada - Ontario - Ozone Depleting Substances and Other Halocarbons - Halocarbons

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanedioxydicarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

## Canada Yukon

### Environment

#### Canada - Yukon - Ozone Depleting Substances and Other Halocarbons

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanedioxydicarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed

• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed
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## Mexico

### Other

#### Mexico - Hazard Classifications

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### Mexico - Regulated Substances

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

## United States

### Labor

#### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### U.S. - OSHA - Specifically Regulated Chemicals

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
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• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**Environment****U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	(including mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers [or other mineral derived fibers] of average diameter 1 µm or less)
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	(including any unique chemical substance that contains Antimony as part of its infrastructure)
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	1000 lb final RQ; 454 kg final RQ
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed

• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	1.0 % de minimis concentration (Chemical Category N010)
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed

• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

## United States - California

### Environment

#### U.S. - California - Proposition 65 - Carcinogens List

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	carcinogen, initial date 7/1/90 (inhalable and biopersistent)
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size)
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	carcinogen, initial date 10/1/90
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### U.S. - California - Proposition 65 - Developmental Toxicity

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

#### U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

## United States - Pennsylvania

### Labor

#### U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb2O3)	1309-64-4	0% TO 5%	
• Antimony oxide (Sb2O3) as Antimony compounds		0% TO 5%	
• Antimony oxide (Sb2O3) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed



**U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Not Listed
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Not Listed
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**United States - Rhode Island****Labor****U.S. - Rhode Island - Hazardous Substance List**

• Glass, oxide, chemicals as Glass wool fiber		60% TO 93%	Toxic
• Phenol, polymer with formaldehyde and urea	25104-55-6	10% TO 30%	Not Listed
• Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	25038-59-9	0% TO 5%	Not Listed
• Carbon Black	1333-86-4	< 0.04%	Toxic
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0% TO 5%	Toxic
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony compounds		0% TO 5%	Toxic
• Antimony oxide (Sb <sub>2</sub> O <sub>3</sub> ) as Antimony oxides		0% TO 5%	Not Listed
• Acetic acid, vinyl ester, polymer	9003-20-7	0% TO 5%	Not Listed
• Glass, oxide, chemicals	65997-17-3	60% TO 93%	Not Listed

**Section 16 - Other Information****Last Revision Date**

- 04/June/2013

**Preparation Date**

- 26/July/2007

**Disclaimer/Statement of Liability**

- Reasonable care has been taken in the preparation of this information, but the supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Safety Data Sheet before handling product.

**Key to abbreviations**

NDA = No Data Available

Print Date: 05-06-2015

 CHILDERS CP-10  
 801796PM

## SAFETY DATA SHEET

REVISION DATE: 12-12-2014

SUPERSEDES: 10-20-2014

### SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER

#### PRODUCT INFORMATION

PRODUCT: CHILDERS CP-10  
 PRODUCT DESCRIPTION: Coating  
 INTENDED USE: Coating  
 PRODUCT IDENTIFIER: 801796PM

#### COMPANY INFORMATION

H.B. Fuller Construction Products Inc.  
 1105 S. Frontenac Street  
 Aurora, IL 60504  
 Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
 Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 2: HAZARDS IDENTIFICATION

#### GHS Hazard Symbols:



**GHS Signal Word:** Warning  
**GHS Classification:** Carcinogenicity Category 2  
**GHS Hazard Phrases:** Suspected of causing cancer.  
**GHS Precautions:**  
     **Safety Precautions:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.  
     **First Aid Measures:** IF exposed or concerned: Get medical advice/attention.  
     **Storage:** Store locked up.  
     **Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	Classification	Note
Crystalline silica	14808-60-7	10 - 30	Carc. 1A; H350 STOT RE 1; H372	* (see below)
Titanium dioxide	13463-67-7	1 - 5	Carc. 2; H351	* (see below)
2,2,4-Trimethyl-1,3-pentanediolmonoisobutyrate	25265-77-4	1 - 5	Aquatic Acute 3; H402	
Attapulgate	12174-11-7	1 - 5	Carc. 2; H351	* (see below)
Vinyl acetate	108-05-4	0.1 - 1	Carc. 2; H351 Flam. Liq. 2; H225	

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\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

### SECTION 4: FIRST AID MEASURES

**IF IN EYES:** Use an eye wash to remove a chemical from your eye regardless of the level of hazard. Flush the affected eye for at least twenty minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Seek medical advice after flushing.

**IF ON SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists.

**IF INHALED:** Remove to fresh air. Call a physician if symptoms persist.

**IF SWALLOWED:** Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

### SECTION 5: FIRE FIGHTING MEASURES

<b>EXTINGUISHING MEDIA:</b>	Use water spray, foam, dry chemical or carbon dioxide.
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.
<b>SPECIAL FIRE FIGHTING INSTRUCTIONS:</b>	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	Carbon dioxide, Carbon monoxide

### SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>SPECIAL PROTECTION:</b>	No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.
<b>METHODS FOR CLEAN-UP:</b>	Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems. Avoid creating dusts. Cover material with absorbent and moisten and collect for disposal.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 7: HANDLING AND STORAGE

**Handling:** No special handling instructions due to toxicity. Avoid breathing material.

**Storage:** Store in a cool, dry place.  
Consult the Technical Data Sheet for specific storage instructions.

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 CHILDERS CP-10  
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## SAFETY DATA SHEET

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMITS:

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Crystalline silica	* (see below)	0.025 mg/m <sup>3</sup> TWA (respirable fraction)	((250)/(%SiO <sub>2</sub> + 5) mppcf TWA (respirable)); ((10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (respirable)); ((30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (total dust))
Titanium dioxide	* (see below)	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA (total dust)
Cellulose	* (see below)	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)
Vinyl acetate		10 ppm TWA 15 ppm STEL	Not established

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

#### ENGINEERING CONTROL METHODS:

**VENTILATION:** Use local exhaust ventilation or other engineering controls to minimize exposures.

**EYE PROTECTION:** Wear safety glasses when handling this product.

**SKIN PROTECTION:** Avoid skin contact by wearing chemically resistant gloves.

**GLOVES:** Not normally required. Use nitrile gloves if conditions warrant.

**RESPIRATORY PROTECTION:** Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. NIOSH approved air purifying respirator with dust/mist filter. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	White
ODOR:	Sweet
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	Non flammable
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	11.30
SPECIFIC GRAVITY:	1.370
SOLUBILITY:	Not established

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## SAFETY DATA SHEET

OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	63.8
VOC, weight percent	1.89
VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	45g/liter of material

### SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Component Toxicity / Toxicology Data:

COMPONENT NAME	LD50/LC50
Crystalline silica	ORAL LD50 RAT 500 MG/KG
Aluminum hydroxide	ORAL LD50 RAT > 5,000 MG/KG
Titanium dioxide	ORAL LD50 RAT > 10,000 MG/KG
2,2,4-Trimethyl-1,3-pentanediolemonoisobutyrate	ORAL LD50 RAT 3,200 MG/KG DERMAL LD50 RAT > 15,200.00 MG/KG
Cellulose	INHALATION LC50-4H RAT > 5,800.00 MG/M3

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: Can cause minor skin irritation, defatting, and dermatitis.

Serious eye damage / irritation :Can cause minor irritation, tearing and reddening.

Respiratory / skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that may cause cancer.

Reproductive toxicity: No data available.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-repeated exposure: No data available.

Target organs potentially affected by exposure: Lungs

Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Lung disease

### SECTION 12: ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available for this product.

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## SAFETY DATA SHEET

MOBILITY:	No data available.
PERSISTENCE:	No data available.
BIOACCUMULATION:	No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
2,2,4-Trimethyl-1,3-pentanediolmonoisobutyrate	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Pimephales promelas: 30 mg/L <b>Acute Toxicity (Daphnia):</b> Not established <b>Acute Toxicity (Algae):</b> 72 Hr EC50 Pseudokirchneriella subcapitata: 18.4 mg/L

### SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

### SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

US DOT:	NOT REGULATED
IATA:	NOT REGULATED

### SECTION 15: REGULATORY INFORMATION

#### INVENTORY STATUS

U.S. EPA TSCA:	This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
CANADIAN CEPA DSL:	The components of this product are included on the DSL or are exempt from DSL requirements.
EUROPEAN REACH:	As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.
AUSTRALIA AICS:	This product is in compliance with the Australian Inventory of Chemical Substances requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

#### FEDERAL REPORTING

##### EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
Vinyl acetate	108-05-4	0.1 - 1

**WHMIS STATUS:** Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

D2A

Print Date: 05-06-2015

CHILDERS CP-10  
801796PM**SAFETY DATA SHEET****STATE REPORTING**

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List		CAS	Percent
Quartz	(Carcinogen)	14808-60-7	10 - 30
Titanium dioxide	(Carcinogen)	13463-67-7	1 - 5
Acetaldehyde	(Carcinogen)	75-07-0	0.001 - 0.01
Formaldehyde	(Carcinogen)	50-00-0	< 10 ppm
Lead	(Carcinogen)	7439-92-1	< 10 ppm
1,4-Dioxane	(Carcinogen)	123-91-1	< 10 ppm
Cadmium	(Carcinogen)	7440-43-9	< 10 ppm
Lead	(Developmental toxin)	7439-92-1	< 10 ppm
Cadmium	(Developmental toxin)	7440-43-9	< 10 ppm
Methanol	(Developmental toxin)	67-56-1	< 10 ppm
Lead	(Female reproductive toxin)	7439-92-1	< 10 ppm
Lead	(Male reproductive toxin)	7439-92-1	< 10 ppm
Cadmium	(Male reproductive toxin)	7440-43-9	< 10 ppm

**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's.

4-Nonylphenol, ethoxylated

tert-Octylphenol, ethoxylated

**SECTION 16: OTHER INFORMATION**

SDS VERSION DATE: 12-12-2014

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B.Fuller Construction Products, Inc. from its suppliers, and because H.B.Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B.Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B.Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B.Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

Print Date: 05-06-2015

 CHILDERS CP-9  
 801791PM

## SAFETY DATA SHEET

REVISION DATE: 12-15-2014

SUPERSEDES: 10-20-2014

### SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER

#### PRODUCT INFORMATION

PRODUCT: CHILDERS CP-9  
 PRODUCT DESCRIPTION: Coating  
 INTENDED USE: Coating  
 PRODUCT IDENTIFIER: 801791PM

#### COMPANY INFORMATION

H.B. Fuller Construction Products Inc.  
 1105 S. Frontenac Street  
 Aurora, IL 60504  
 Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
 Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 2: HAZARDS IDENTIFICATION

#### GHS Hazard Symbols:



**GHS Signal Word:** Warning  
**GHS Classification:** Carcinogenicity Category 2  
**GHS Hazard Phrases:** Suspected of causing cancer.

**GHS Precautions:**  
**Safety Precautions:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

**First Aid Measures:** IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. IF IN EYES: Use an eye wash to remove chemical from the eye. IF ON SKIN: Wash with soap and water. IF INHALED: Remove individual to fresh air after an airborne exposure if any symptoms develop. IF exposed or concerned: Get medical advice/attention.

**Storage:** Store locked up.

**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	Classification	Note
Crystalline silica	14808-60-7	10 - 30	Carc. 1A; H350 STOT RE 1; H372	* (see below)
Titanium dioxide	13463-67-7	1 - 5	Carc. 2; H351	* (see below)
2,2,4-Trimethyl-1,3-pentanediolmonoisobutyrate	25265-77-4	1 - 5	Aquatic Acute 3; H402	
Attapulgate	12174-11-7	1 - 5	Carc. 2; H351	* (see below)



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Vinyl acetate	108-05-4	0.1 - 1	Carc. 2; H351 Flam. Liq. 2; H225	
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\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

**SECTION 4: FIRST AID MEASURES**

**IF IN EYES:** Use an eye wash to remove a chemical from your eye regardless of the level of hazard. Flush the affected eye for at least twenty minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Seek medical advice after flushing.

**IF ON SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists.

**IF INHALED:** Remove to fresh air. Call a physician if symptoms persist.

**IF SWALLOWED:** Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

**SECTION 5: FIRE FIGHTING MEASURES**

<b>EXTINGUISHING MEDIA:</b>	Use water spray, foam, dry chemical or carbon dioxide.
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.
<b>SPECIAL FIRE FIGHTING INSTRUCTIONS:</b>	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	Carbon dioxide, Carbon monoxide

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

<b>SPECIAL PROTECTION:</b>	No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.
<b>METHODS FOR CLEAN-UP:</b>	Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems. Avoid creating dusts. Cover material with absorbent and moisten and collect for disposal.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 7: HANDLING AND STORAGE**

**Handling:** No special handling instructions due to toxicity. Avoid breathing material.

**Storage:** Store in a cool, dry place.  
Consult the Technical Data Sheet for specific storage instructions.

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 801791PM

## SAFETY DATA SHEET

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMITS:

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Crystalline silica	* (see below)	0.025 mg/m <sup>3</sup> TWA (respirable fraction)	((250)/(%SiO <sub>2</sub> + 5) mppcf TWA (respirable)); ((10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (respirable)); ((30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (total dust))
Titanium dioxide	* (see below)	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA (total dust)
Cellulose	* (see below)	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)
Vinyl acetate		10 ppm TWA 15 ppm STEL	Not established

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

#### ENGINEERING CONTROL METHODS:

**VENTILATION:** Use local exhaust ventilation or other engineering controls to minimize exposures.

**EYE PROTECTION:** Wear safety glasses when handling this product.

**SKIN PROTECTION:** Avoid skin contact by wearing chemically resistant gloves.

**GLOVES:** Not normally required. Use nitrile gloves if conditions warrant.

**RESPIRATORY PROTECTION:** Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. NIOSH approved air purifying respirator with dust/mist filter. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	White
ODOR:	Sweet
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	Non flammable
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	11.30
SPECIFIC GRAVITY:	1.320
SOLUBILITY:	Not established

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OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	63.7
VOC, weight percent	1.80
VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	45g/liter of material

**SECTION 10: STABILITY AND REACTIVITY**

STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide

**SECTION 11: TOXICOLOGICAL INFORMATION****Component Toxicity / Toxicology Data:**

COMPONENT NAME	LD50/LC50
Crystalline silica	ORAL LD50 RAT 500 MG/KG
Aluminum hydroxide	ORAL LD50 RAT > 5,000 MG/KG
Titanium dioxide	ORAL LD50 RAT > 10,000 MG/KG
2,2,4-Trimethyl-1,3-pentanediolmonoisobutyrate	ORAL LD50 RAT 3,200 MG/KG DERMAL LD50 RAT > 15,200.00 MG/KG
Cellulose	INHALATION LC50-4H RAT > 5,800.00 MG/M3

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: Can cause minor skin irritation, defatting, and dermatitis.

Serious eye damage / irritation :Can cause minor irritation, tearing and reddening.

Respiratory / skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that may cause cancer.

Reproductive toxicity: No data available.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-repeated exposure: No data available.

Target organs potentially affected by exposure: Lungs

Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Lung disease

**SECTION 12: ECOLOGICAL INFORMATION**

OVERVIEW: No ecological information available for this product.

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CHILDERS CP-9  
801791PM**SAFETY DATA SHEET**

MOBILITY: No data available.  
PERSISTENCE: No data available.  
BIOACCUMULATION: No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
2,2,4-Trimethyl-1,3-pentanediolmonoisobutyrate	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Pimephales promelas: 30 mg/L <b>Acute Toxicity (Daphnia):</b> Not established <b>Acute Toxicity (Algae):</b> 72 Hr EC50 Pseudokirchneriella subcapitata: 18.4 mg/L

**SECTION 13: DISPOSAL CONSIDERATIONS**

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

**SECTION 14: TRANSPORT INFORMATION**

Consult Bill of Lading for transportation information.

US DOT: NOT REGULATED  
IATA: NOT REGULATED

**SECTION 15: REGULATORY INFORMATION****INVENTORY STATUS**

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

CANADIAN CEPA DSL: The components of this product are included on the DSL or are exempt from DSL requirements.

EUROPEAN REACH: As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.

AUSTRALIA AICS: This product is in compliance with the Australian Inventory of Chemical Substances requirements.

CHINA IECSC INVENTORY: This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

**FEDERAL REPORTING****EPA SARA Title III Section 313**

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
Vinyl acetate	108-05-4	0.1 - 1

**WHMIS STATUS:** Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

Print Date: 05-06-2015

CHILDERS CP-9  
801791PM**SAFETY DATA SHEET**

D2A D2B

**STATE REPORTING**

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List		CAS	Percent
Quartz	(Carcinogen)	14808-60-7	10 - 30
Titanium dioxide	(Carcinogen)	13463-67-7	1 - 5
Acetaldehyde	(Carcinogen)	75-07-0	0.001 - 0.01
Formaldehyde	(Carcinogen)	50-00-0	0.001 - 0.01
1,4-Dioxane	(Carcinogen)	123-91-1	< 10 ppm
Lead	(Carcinogen)	7439-92-1	< 10 ppm
Cadmium	(Carcinogen)	7440-43-9	< 10 ppm
Lead	(Developmental toxin)	7439-92-1	< 10 ppm
Cadmium	(Developmental toxin)	7440-43-9	< 10 ppm
Methanol	(Developmental toxin)	67-56-1	< 10 ppm
Lead	(Female reproductive toxin)	7439-92-1	< 10 ppm
Lead	(Male reproductive toxin)	7439-92-1	< 10 ppm
Cadmium	(Male reproductive toxin)	7440-43-9	< 10 ppm

**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's.

tert-Octylphenol, ethoxylated

**SECTION 16: OTHER INFORMATION**

SDS VERSION DATE: 12-15-2014

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B.Fuller Construction Products, Inc. from its suppliers, and because H.B.Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B.Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B.Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B.Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

## Dritherm

Revision Date: 15/Jul/2014

Revision Number: 1.0

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	Dritherm
<b>Chemical Name</b>	Limestone
<b>Company</b>	Dritherm International Inc. 2500 Plaza 5 Harborside Fincial Center Jersey City, NJ 07311 USA Tel: 973-808-2255 Fax: 973-808-2815
<b>Emergency Telephone</b>	973-808-2255
<b>Internet</b>	<a href="http://www.dritherm.com">www.dritherm.com</a>
<b>Email</b>	<a href="mailto:info@dritherm.com">info@dritherm.com</a>

### 2. HAZARD IDENTIFICATION

**Emergency overview:** This is a non-combustible, odorless white powder.

#### Potential Health Effects

<b>Sensitization</b>	Does not cause sensitization.
<b>Eye contact:</b>	Dust may cause mechanical irritation to eyes.
<b>Eye irritation</b>	Slightly irritating, not classified.
<b>Skin contact:</b>	Dries skin and mucous membranes.
<b>Skin irritation</b>	Possible dry skin and mucous membranes.
<b>Inhalation:</b>	Causes respiratory tract irritation if inhaled.
<b>Carcinogenicity:</b>	This product contains greater than 0.1% crystalline silica which is listed as a Group 1 carcinogen by IARC, a known carcinogen by NTP, OSHA and as A2 suspected human carcinogen by ACGIH.

**Potential environmental effects** Not considered to be harmful to aquatic life.

**Environmental Exposure:** This product does not present any particular risk for the environment. Check the appropriate national and local regulations before the product is washed into the sewer.

**Limestone - CAS: 1317-65-3**

Wet material on walking surfaces is hazardous.  
Avoid dust formation.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT(S) / CAS	EC / REACH	EU CLP Classification	%W/W
Limestone CAS: 1317-65-3	215-279-6 Exempt*	Not classified	78.5
Stearic Acid CAS: 57-11-4	200-313-4 Exempt*	Not classified	1 - 5
Crystalline Silica, quartz (impurity) CAS: 14808-60-7	238-878-4 Exempt*	Not classified	0.1 - 5.0

**Limestone - CAS: 1317-65-3**

Regulation (EC) 1907/2006: REACH  
\*Exempt as a naturally occurring substance.

**Stearic Acid - CAS: 57-11-4**

\*Contact JM Huber for REACH Regulatory Status

**Crystalline Silica, quartz (impurity) - CAS: 14808-60-7**

\*Exempt. An impurity

### 4. FIRST AID MEASURES

<b>Eye contact</b>	Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	Remove person to fresh air.
<b>General Advice</b>	In case of doubt or when symptoms persist, seek medical attention.

## 5. FIRE-FIGHTING MEASURES

NFPA:	Health 1	Flammability 0	Reactivity 0	PPE: E
HMIS:	Health 1	Flammability 0	Physical hazard 0	
Extinguishing media	All extinguishing media can be used. Use suitable media appropriate for the surrounding fire. Non-combustible.			
Unsafe extinguishing media:	None.			
Special exposure hazards:	None.			
Special protective equipment for firefighters	Firefighters should wear protective clothing and use equipment that is suitable for the materials involved in the surrounding fire.			

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Avoid contact with skin and eyes. Wear suitable personal protection equipment. Avoid inhalation of dust.
Environmental precautions	This product is not expected to cause an environmental hazard as a result of its intended use, disposal, or incineration.
Cleanup methods	Pick up mechanically and / or by rinsing with water. Avoid dry sweeping and use a sprinkler system or exhaust ventilation to prevent dust formation.

## 7. HANDLING AND STORAGE

Handling	Avoid dust formation. Provide appropriate exhaust ventilation in places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.
Storage	Store in a dry area. Keep containers closed and protect from physical damage.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Controls	
Engineering Controls:	Use mechanical ventilation (dilution and local exhaust) to control exposure.
Nuisance particles/ Nuisance dust:	ACGIH: 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)
Personal Protective Equipment	



<b>Eye Protection</b>	Safety glasses with side shields.
<b>Skin and Body Protection:</b>	Use suitable protective clothing, gloves and footwear, selected with regard for use conditions and exposure.
<b>Hand Protection:</b>	Impervious gloves: chemical resistant. EN 420
<b>Respiratory Protection:</b>	In case of exposure to high levels of airborne dust, wear a respirator EN 149, P2 half masks Use NIOSH/MSHA approved respiratory protection equipment when airborne exposures exceeds established guidelines.
<b>Hygiene Measures:</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Environmental Exposure:</b>	This product does not present any particular risk for the environment. Check the appropriate national and local regulations before the product is washed into the sewer.

## Control Parameters

### Exposure Limit Values:

#### Limestone - CAS: 1317-65-3

OSHA - TWA	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
ACGIH - TLV-TWA 8-hour	--
NIOSH - TWAs	10 mg/m <sup>3</sup> 5 mg/m <sup>3</sup>
NIOSH - Target Organs	skin respiratory system eyes
Canada - Alberta - OEL - TWA	10 mg/m <sup>3</sup>
Canada - British Columbia - OEL - TWA	3 mg/m <sup>3</sup> (respirable fraction); 10 mg/m <sup>3</sup> (total dust)
Canada - British Columbia - OEL - TWAs	10 mg/m <sup>3</sup> 3 mg/m <sup>3</sup>
Canada - British Columbia - OELs- STELS	20 mg/m <sup>3</sup>

#### Stearic Acid - CAS: 57-11-4

Canada - Alberta - OEL - TWA	Not established
Canada - British Columbia - OEL - TWA	Not established
Canada - Manitoba - OEL - TWA	Not established
Canada - Newfoundland & Labrador - OEL - TWA	Not established

#### Crystalline Silica, quartz (impurity) - CAS: 14808-60-7

OSHA - TWA	(10 mg/m <sup>3</sup> )/(%SiO <sub>2</sub> + 2) (respirable) (30 mg/m <sup>3</sup> )/(%SiO <sub>2</sub> + 2) (Total Dust)
ACGIH - TLV-TWA 8-hour	0.025 mg/m <sup>3</sup> TWA (respirable fraction)
NIOSH - TWAs	0.05 mg/m <sup>3</sup>
NIOSH - Potential Occupational Carcinogens	potential occupational carcinogen
Canada - Alberta - OEL - TWA	0.025 mg/m <sup>3</sup> TWA (respirable particulate)
Canada - British Columbia - OEL - TWA	0.025 mg/m <sup>3</sup> TWA (respirable fraction)
Canada - British Columbia - OEL - Designated Substances	ACGIH Category A2 - Suspected Human Carcinogen IARC Category 1 - Human Carcinogen
Canada - British Columbia - OEL - TWAs	0.025 mg/m <sup>3</sup>
Canada - Manitoba - OEL - TWA	0.025 mg/m <sup>3</sup> TWA (respirable fraction)

Canada - Newfoundland & Labrador - 0.025 mg/m<sup>3</sup> TWA (respirable fraction)  
OEL - TWA  
Canada - Nova Scotia - OEL - TWA 0.025 mg/m<sup>3</sup> TWA (respirable fraction)  
Canada - Prince Edward Island - OEL 0.025 mg/m<sup>3</sup> TWA (respirable fraction)  
- TWA  
Mexico OEL Data - TWA 0.1 mg/m<sup>3</sup> TWA (respirable fraction)

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	White Powder
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No information available
<b>pH:</b>	8.4 - 10.2, (5% water suspension)
<b>Freeze Point</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Flammability</b>	Not applicable
<b>Vapor Pressure</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Density</b>	2.7 g/cm <sup>3</sup> @ 20°C
<b>Water Solubility</b>	1.3 g/l @ 20° C
<b>Autoignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	700-900° C

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	None
<b>Stability</b>	Stable under normal conditions
<b>Possibility of Hazardous Reactions</b>	Hazardous polymerization will not occur.
<b>Conditions to avoid</b>	None
<b>Materials to avoid (Incompatible Materials)</b>	Strong Acids
<b>Hazardous decomposition products</b>	None

## 11. TOXICOLOGICAL INFORMATION

<b>Toxicological Data Sources</b>	Data from the scientific literature on components are summarized below.
<b>Chronic toxicity</b>	No evidence of mutagenic or reproductive effects.
<b>Carcinogenicity:</b>	This product contains greater than 0.1% crystalline silica which is listed as a Group 1 carcinogen by IARC, a known carcinogen by NTP, OSHA and as A2 suspected human carcinogen by ACGIH.

### Limestone - CAS: 1317-65-3

LD50 Oral	6450 mg/kg (rat)
-----------	------------------

### Stearic Acid - CAS: 57-11-4

#### **Toxicology Data - Selected LD50s and LC50s**

5 g/kg Dermal LD50 Rabbit	
LD50 Dermal	>5000 mg/kg (rabbit)

### Crystalline Silica, quartz (impurity) - CAS: 14808-60-7

**IARC - Group 1 (Carcinogenic to Humans)  
dated 1977**

LD50 Oral	500 mg/kg (rat)
-----------	-----------------

### **Potential Health Effects**

<b>Sensitization</b>	Does not cause sensitization.
<b>Eye irritation</b>	Slightly irritating, not classified.
<b>Skin irritation</b>	Possible dry skin and mucous membranes.
<b>Inhalation</b>	Contains crystalline silica which can be absorbed into the body by inhalation and may have effects on the lungs, resulting in fibrosis (silicosis).

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	This product is not expected to be toxic to aquatic life.
<b>Persistence / Degradability</b>	Non-degradable
<b>Bioaccumulative potential</b>	None
<b>Mobility</b>	Inert material.
<b>Other Adverse Effects</b>	None known.

### Limestone - CAS: 1317-65-3

Germany - Water Classification (VwVwS) - Annex 1 317 : 0

### Stearic Acid - CAS: 57-11-4

Germany - Water Classification (VwVwS) - Annex 1 661 not considered hazardous to water

Limestone - CAS: 1317-65-3

Crystalline Silica, quartz (impurity) - CAS: 14808-60-7

Germany - Water Classification (VwVwS) - Annex 1 849 :0

Germany - Water Classification (VwVwS) - Annex 3 849 : 0

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL CONSIDERATIONS:** Dispose in accordance with local, state and national regulations.

Limestone - CAS: 1317-65-3

European Waste Catalogue (EWC): 10130414

## 14. TRANSPORT INFORMATION

<b>UN-No</b>	None.
<b>Proper Shipping Name</b>	Refer to Sections 1 and 3 for product name and chemical name(s)
<b>IMO / IMDG</b>	Not a dangerous substance.
<b>ICAO / IATA</b>	Not a dangerous substance.
<b>RID/ADR</b>	Not a dangerous substance.
<b>D.O.T. Hazard Classification</b>	Non-hazardous material.
<b>General Information</b>	The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.
<b>Other information</b>	Environmental hazards: None known  Special precautions for user: Refer to Sections 2, 7, 8, 9, 10

## 15. REGULATORY INFORMATION

Component(s) of the product are on the following Inventory lists:

COMPONENT(S) / CAS	EC / REACH	Australia (AICS)	Canada	China (IECSC)	Japan	Korea (KECL)	New Zealand (NZIoC)	Philippines (PICCS)	USA (TSCA)	Taiwan (ECN)
Limestone CAS: 1317-65-3	215-279-6 Exempt*	Present	Present (NDSL)*	Present	(1)-122	KE-21996	Present	Present	Present	Nominated
Stearic Acid CAS: 57-11-4	200-313-4 Exempt*	Present	Present (DSL)	Present	(2)-609 (ENCS) (2)-608 (ENCS)	KE-26333	Present	Present	Present	Nominated
Crystalline Silica, quartz (impurity) CAS: 14808-60-7	238-878-4 Exempt*	Present	Present (DSL)	Present	(1)-548 (ENCS)	KE-29983	Present	Present	Present	-

Legend  
PRESENT : Listed  
- : Not Listed  
Exempt  
Nominated

**Limestone - CAS: 1317-65-3**

Regulation (EC) 1907/2006: REACH

\*Exempt as a naturally occurring substance.

**Canada - WHMIS - Classifications of Substances** D2A

**Stearic Acid - CAS: 57-11-4**

\*Contact JM Huber for REACH Regulatory Status

**Canada - WHMIS - Classifications of Substances** Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS - Ingredient Disclosure List 1 %

**Crystalline Silica, quartz (impurity) - CAS: 14808-60-7**

\*Exempt. An impurity

**Canada - WHMIS - Classifications of Substances** D2A

Canada - WHMIS - Ingredient Disclosure List 1 %

California - Proposition 65 - Carcinogens List (409) carcinogen

**EPA:**

**SARA 311 / 312 HAZARD:** None

**SARA 313:** None

**CERCLA RQ:** None

**Clean Water Act::** The components of this product are not regulated under any of the following sections of the Clean Water Act: Section 307 Priority Pollutants or Section 311 Hazardous Substances. It would be regulated under 304 Water Quality Criteria Substances for suspended solids.

**Clean Air Act:** The components of this product are not regulated under any of the following sections of the Clean Air Act: Section 112 Hazardous Air Pollutants, Section 112 Statutory Air Pollutants, Section 112 High-Risk Pollutants, Section 112(r) Accidental Release Prevention Substances or Section 602 Ozone Depleting Substance. As a powder product, it would be regulated under Section 109 Criteria Pollutants particulates.

**States Right-to-Know (RTK):**

**California Proposition 65:** The product contains the following chemicals at levels known to the State of California to cause cancer:  
Crystalline Silica (14808-60-7): carcinogen, initial date 10/1/88 (airborne particles of respirable size)

**CONEG** The heavy metals defined in CONEG are not intentionally introduced to this product and with respect to heavy metals, lead and arsenic, the level is less than 100 ppm.

**CANADA**

**WHMIS:** 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.

(M)SDS Format : ANSI Z400.1-2003 ▾

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Personal Protective Equipment		
		
Protective Gloves	Dust Respirator	Safety Glasses

WHMIS Pictograms
<b>Not Controlled</b>

**SECTION 1 : IDENTIFICATION**

Product Name: **QuietR™ Duct Board**  
SDS Manufacturer Number: 10003383-NAM  
Product Use/Restriction: Duct Board  
Manufacturer Name: Owens Corning Insulating Systems, LLC  
Address: One Owens Corning Parkway  
Toledo, OH 43659  
Website: www.owenscorning.com  
Customer Service Phone Number: 1-800-GET-PINK or 1-800-438-7465  
Health Issues Information: 1-800-GET-PINK or 1-800-438-7465  
Technical Product Information: 1-800-GET-PINK or 1-800-438-7465  
Emergency Phone Number: 1-419-248-5330 (after 5pm ET and weekends)  
CHEMTREC: 800-424-9300 (24 hours everyday).  
Canutec: (613) 996-6666 (Canada 24 hours everyday).

**SECTION 2 : HAZARD(S) IDENTIFICATION****Applies to Product**

Emergency Overview: Exposure to dust may be irritating to eyes, nose, and throat.

Route of Exposure: Eye contact  
Skin contact  
Inhalation

Potential Health Effects:

Eye: May cause slight irritation.

Skin: May cause slight skin irritation.

Inhalation: May cause irritation of respiratory tract.

Ingestion:	Ingestion of this product is unlikely.
Chronic Health Effects:	There is no known chronic health effect connected with long-term use or contact with this product.
Carcinogenicity:	This product contains a component which is listed by IARC, OSHA or NTP. See Section 11 for additional information.
Potential Environmental Effects:	There is no known ecological information for this material.
Aggravation of Pre-Existing Conditions:	Chronic respiratory or skin conditions may temporarily worsen from exposure to this product.
OSHA Regulatory Status:	This product is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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### SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

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Chemical Name	CAS#	Ingredient Percent	EC Num.
Fiber Glass (Wool)	65997-17-3	83 - 95 by weight	266-046-0
Cured Binder	N/A	3 - 15 by weight	
Fiber Glass (continuous filament, non-respirable)	65997-17-3	1 - 2 by weight	266-046-0
As manufactured continuous filament glass fibers are non-respirable. Continuous filament glass products that are chopped, crushed or severely mechanically processed during manufacturing or use may contain a very small amount of respirable particulate, some of which may be glass shards. See Section 8 for Exposure Limit Data.			
Non-Hazardous Statement:	The remaining components of this product are non-hazardous or are in a small enough quantity as to not meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product.		

As manufactured continuous filament glass fibers are non-respirable. Continuous filament glass products that are chopped, crushed or severely mechanically processed during manufacturing or use may contain a very small amount of respirable particulate, some of which may be glass shards. See Section 8 for Exposure Limit Data.

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### SECTION 4 : FIRST AID MEASURES

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Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Do not rub or scratch eyes. If eye irritation persists, consult a specialist.
Skin Contact:	Wash off immediately with soap and cold water. DO NOT use warm water because this will open up the pores of the skin, which will cause further penetration of the fibers. Use a wash cloth to help remove fibers. DO NOT rub or scratch affected areas. Remove contaminated clothing. If irritation persists get medical attention. Never use compressed air to remove fibers from the skin. If fibers are seen penetrating from the skin, the fibers can be removed by applying and removing adhesive tape so that the fibers adhere to the tape and are pulled out of the skin.
Inhalation:	Move to fresh air. If symptoms persist, call a physician.
Ingestion:	Accidental ingestion of this material is unlikely. If this does occur, watch person for several days to make sure intestinal blockage does not occur. Rinse mouth with water and drink water to remove fibers from the throat. If symptoms persist, call a physician.
Note to Physicians:	Treat symptomatically.

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### SECTION 5 : FIRE FIGHTING MEASURES

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Flammable Properties:	Non Flammable.
Flash Point:	None.
Lower Flammable/Explosive Limit:	Not applicable.
Upper Flammable/Explosive Limit:	Not applicable.

Extinguishing Media:	dry chemical foam. carbon dioxide (CO2). water fog
Protective Equipment:	Wear self-contained breathing apparatus (SCBA) and full fire fighting protective gear.
Unusual Fire Hazards:	Hydrogen chloride to be released from the PVC barrier and vinyl facings during a fire.
Hazardous Combustion Byproducts:	Carbon monoxide. Carbon dioxide. Ammonia. Other undetermined compounds could be released in small quantities.
Universal Fire And Explosion Hazards:	Not available.

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## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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Personnel Precautions:	Avoid contact with skin and eyes.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so.
Spill Cleanup Measures:	Clean-Up Procedures: Scoop up material and put into a suitable container for disposal as a non-hazardous waste.  Containment Procedures: This material will settle out of the air. If concentrated on land, it can then be scooped up for disposal as a non-hazardous waste. This material will sink and disperse along the bottom of waterways and ponds. It cannot easily be removed after it is waterborne; however, the material is non-hazardous in water.
Methods for containment:	This material will settle out of the air. Prevent from spreading by covering, diking or other means.
Methods for cleanup:	Use an industrial vacuum cleaner with a high efficiency filter to clean up dust and fiber contamination. Avoid dry sweeping. Pick up and transfer to properly labeled containers.
Other Precautions:	Does not apply.

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## SECTION 7 : HANDLING and STORAGE

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Handling:	Avoid dust formation. Do not breathe dust. Wear personal protective equipment.
Storage:	Keep product in its packaging until use to minimize potential dust generation. Product should be kept dry and undercover.
Hygiene Practices:	Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

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## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

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Engineering Controls:	Provide local exhaust and/or general ventilation to maintain exposure below regulatory and recommended limits. Dust collection system must be used in transferring operations, cutting or machining or other dust generating processes, such as using power tools. Vacuum or wet clean-up methods should be used.
Eye/Face Protection:	Safety glasses with side-shields.
Skin Protection Description:	Protective gloves. Long sleeved shirt and long pants.
Respiratory Protection:	When workers are facing airborne particulate/dust concentrations above the exposure limit they must use appropriate certified respirators. A properly fitted NIOSH approved disposable N 95 type dust respirator or better is recommended.
Other Protective:	When the temperature of the surface being insulated exceeds 250°F (121°C), including initial startup, the binder in these products may undergo various degrees of decomposition depending on the temperature in the application. The need for respiratory protection will vary according to the airborne concentration of the decomposition products released and accumulated in the area. Wear the appropriate respiratory protection according to the conditions and exposure levels in the area.
General Hygiene Considerations:	Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.



## EXPOSURE GUIDELINES

Ingredient	Guideline OSHA	Guideline ACGIH	Ontario Canada	Mexico	
Fiber Glass (Wool)	PEL-TWA: 1 f/cc (Respirable)	TLV-TWA: 1 f/cc (Respirable)	TWAEV-TWA: 0.05 mg/m3 or 1 f/cc STEL: 0.6 mg/m3	TWA: 0.15 mg/m3	
Fiber Glass (continuous filament, non-respirable)	PEL-TWA: 1 f/cc (Respirable)	TLV-TWA: 1 f/cc (Respirable) 5 mg/m3 (Inhalable)	TWAEV: 1 f/cc (Respirable) 5 mg/m3 (Inhalable)	TWA: 10 mg/m3	

## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Fibrous.
Color:	black
Odor:	Faint resin odor.
Boiling Point:	No Data
Melting Point:	No Data
Specific Gravity:	No Data
Solubility:	Insoluble. in water.
Vapor Density:	No Data
Vapor Pressure:	No Data
Evaporation Rate:	No Data
pH:	No Data
Viscosity:	Not applicable.
Flash Point:	None.

## SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:	Stable under normal conditions.
Hazardous Polymerization:	Hazardous polymerization does not occur.
Conditions to Avoid:	None expected
Incompatible Materials:	No materials to be especially mentioned.
Special Decomposition Products:	See Section 5 of MSDS for hazardous decomposition products during a fire.

## SECTION 11 : TOXICOLOGICAL INFORMATION

**Applies to Product :**

Acute Toxicity:	Dusts may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. High exposures may cause difficulty breathing, congestion, and chest tightness.
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Carcinogens:							
	ACGIH	NIOSH	OSHA	IARC	NTP		MEXICO
Fiber Glass (Wool)	A3 Animal Carcinogen	No Data	No Data	Group 3 - Not Classifiable as to its Carcinogenicity to Humans.	Biosoluble glass wool is not considered to be carcinogenic.		A3 Animal Carcinogen
Cured Binder	No Data	No Data	No Data	No Data	No Data		No Data
Fiber Glass (continuous filament, non-respirable)	A4 Not Classifiable as a Human Carcinogen	No Data	No Data	Group 3 - Not Classifiable as to its Carcinogenicity to Humans.	No Data		No Data



	Japan ENCS	EINECS Number	China	South Korea KECL	Australia AICS
Fiber Glass (Wool)	Not listed	266-046-0	Listed	KE-17630	Listed
Cured Binder	Not listed		Listed	KE-35185	Listed
Fiber Glass (continuous filament, non-respirable)	Not listed	266-046-0	Listed	KE-17630	Listed

	Canada DSL	TSCA Inventory Status			
Fiber Glass (Wool)	Listed	Listed			
Cured Binder	Listed	Listed			
Fiber Glass (continuous filament, non-respirable)	Listed	Listed			

**Applies to Product :**

Canada WHMIS: Not controlled.

CA PROP 65: The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):  
WARNING! This product contains a chemical known to the State of California to cause cancer.

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

Section 311/312 Hazard Categories:

Acute Health Hazard: Yes  
Chronic Health Hazard: Yes  
Risk of ignition.: No  
Sudden Release of Pressure Hazard.: No  
Reactive Hazard: No

Clean Air Act: This product does not contain any Hazardous Air Pollutants (HAPs).

**Fiber Glass (Wool) :**

EC Number: 266-046-0

**Fiber Glass (continuous filament, non-respirable) :**

EC Number: 266-046-0

**State Right To Know**

	RI	MN	IL	PA	MA
Fiber Glass (Wool)	Listed	Listed	Listed	Listed	Listed
Cured Binder	No Data	No Data	No Data	No Data	No Data
Fiber Glass (continuous filament, non-respirable)	No Data	Listed	No Data	No Data	No Data

	NJ				
Fiber Glass (Wool)	No Data				
Cured Binder	No Data				
Fiber Glass (continuous filament, non-respirable)	No Data				

**SECTION 16 : ADDITIONAL INFORMATION****HMIS Ratings:**

HMIS Health Hazard: 1  
HMIS Fire Hazard: 1  
HMIS Reactivity: 0  
HMIS Personal Protection: X

SDS Creation Date: January 30, 2007

SDS Revision Date: January 14, 2013  
MSDS Revision Notes: "Section 11 Updated with 2011 NTP Evaluation"  
MSDS Author: KK

## Disclaimer:

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

Copyright© 1996-2015 Actio Corporation. All Rights Reserved.

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---

## **SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

### **Product identifier**

Product name: Glass Mineral Wool with ECOSE® Technology

Synonyms, trade names: EcoBatt® (Unfaced and Faced) Building Insulation, EcoBatt® QuietTherm® (Unfaced and Faced) Building Insulation, Acoustical/IB Board, Acoustical Board Smooth, Air Duct Board (Atmosphere™, Eclipse®), KB Blanket, Black Acoustical Board, Black Diffuser Board, Condensation Control Blanket, Duct Liner (Atmosphere™ and Sonic XP®), Duct Wrap Faced and Unfaced (Atmosphere™, Friendly Feel®), Earthwool® 1000° Pipe Insulation\*, ET Batt\*, ET Blanket\*, ET Board\*, ET Panel\*, Equipment Liner M, Everbilt (Unfaced and Faced) Building Insulation, Fabrication Board\*, Flexible Duct Material, Guardian (Unfaced and Faced) Building Insulation, Hullboard\*, Insulation Board (Faced and Unfaced)\*, KF-110\*, KFR/ET Range Insulation\*, KN Series\*, Manufactured Housing Duct Board, Manufactured Housing Insulation, Metal Building Insulation, Metal Building Filler Insulation, Pipe & Tank Insulation\*, Earthwool® Redi-Klad® 1000° Pipe Insulation\*, Rigid Plenum Liner, Sill Sealer, Wall & Ceiling Liner M (\* See section 2., 8, 10)

Revision: Date: 2015-10-26

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

Identified use(s): Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.

Uses advised against: None known.

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

Head Office Knauf Insulation LLC  
One Knauf Drive  
Shelbyville  
IN 46176-1496  
Tel: 800 825 4434  
sds@knaufinsulation.com  
www.knaufinsulation.us

Region: United States, Central & South America's

### **Emergency telephone number**

Emergency telephone: 24hrs Chemtrec Tel: Tel: 800 424 9300

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## SECTION 2: HAZARDS IDENTIFICATION

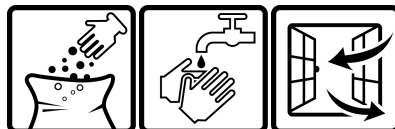
### Classification of the substance or mixture

Classification according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)  
: The product is not classified.

### Label elements

Contains: None.  
Hazard pictogram: None.  
Signal word: None.  
Hazard statements: None.  
Precautionary statements:  
- Prevention: None.  
- Response None.  
- Storage None.  
- Disposal None.  
Supplemental label information: None.

The following sentences and pictograms are printed on packaging: The mechanical effect of fibers in contact with skin may cause temporary itching.



[www.knaufinsulation.com/comfort-and-handling](http://www.knaufinsulation.com/comfort-and-handling)

### Other hazards

None.

#### Hazard summary

Physical Hazards: None.

Health Hazards: Mechanical irritation of the skin, eyes and upper respiratory system.

Environmental Hazards: None.

Main symptoms: Contact with skin, eyes and upper respiratory system may cause mechanical irritation.  
Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

\* Heat-Up Precautions: When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. - See section 8. & 10

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Substances

<u>%:</u>	<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
87-100	-	Biosoluble glass mineral wool	-	(1), (2), (3)
0-13	-	Thermo set, inert polymer bonding agent derived from plant starches	-	(1)
Notes:				
(1) Specific chemical identity and/or exact percent concentration is withheld as trade secret.				
(2) Man made vitreous (silicate) fibers with random orientation with alkaline oxide and alkali earth oxide (Na <sub>2</sub> O+K <sub>2</sub> O+CaO+MgO+BaO) content greater than 18% by weight meeting the requirements of Note Q of regulation n° 1272/2008 and therefore not classified carcinogenicity.				
(3) All Knauf Insulation products covered by this SDS are independently certified by EUCB to be manufactured using biosoluble glass formulations and thus exempt from labeling under NTP or California Prop 65 requirements.				

### SECTION 4: FIRST AID MEASURES

#### Description of first aid measures

##### General Information:

Show this Safety Data Sheet to the medical professional in attendance. If symptoms occur, follow first aid measures as appropriate.

Notes to Physician: None specific.

Inhalation: Remove from exposure. Rinse the throat and clear dust from airways.

Skin contact: If mechanical irritation occurs, remove contaminated clothing and wash skin gently with cold water and soap.

Eye contact: Rinse abundantly with water for at least 15 minutes.

Ingestion: Drink plenty of water if accidentally ingested.

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

Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

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

If any adverse reaction or discomfort continues from any of the above exposures, seek professional medical advice.

Medical attention/treatments: None specific.

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## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

Water, foam, carbon dioxide (CO<sub>2</sub>), and dry powder.

### Special hazards arising from the substance or mixture

Products do not pose a fire hazard in use; however, some packaging materials or facings may be combustible. Products of combustion from product and packaging - carbon dioxide, carbon monoxide and some trace gases such as ammonia, nitrogen oxides and volatile organic substances.

### Advice for firefighters

In large fires in poorly ventilated areas involving packaging materials respiratory protection / breathing apparatus may be required.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Personal precautions: Minimize direct contact with skin in order to prevent mechanical itching. In dusty environments, use suitable respiratory protection such as 3M 8210, N95 or equivalent. Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments. Where possible, use natural ventilation during installation in order to minimize dust levels.

After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching. Dispose of surplus product in accordance with local regulations.

Emergency procedures: Use personal protection recommended in Section 8 of the SDS.

### Environmental precautions

Not relevant.

### Methods and material for containment and cleaning up

In dusty environments, use vacuum equipment where possible to minimize dust levels.

### Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

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

### **Precautions for safe handling**

Assure proper respiratory protection if dust potential exceeds PEL/TLV.

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

To ensure optimum product performance; when packaging is removed or opened; products should be stored inside or covered to protect them from ingress of rain water or snow.  
Storage arrangements should ensure stability of stacked products and use on a first in first out basis (FIFO) is recommended.

### **Specific end use(s)**

Thermal and/or acoustic insulation for use in technical applications, industrial applications and in building construction.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

United States

Occupational exposure limits:

<u>CAS- No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>	<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
-	Glass wool fibers	-	1 fiber/ml	TWA	A3	ACGIH
-	Mineral wool fiber, total particulate	-	5 mg/m3	TWA	-	NIOSH
-	Particulates not otherwise regulated (PNOR), respirable fraction	-	5 mg/m3	TWA	-	OSHA
-	Particulates not otherwise regulated (PNOR), total dust	-	15 mg/m3	TWA	-	OSHA

Notes: (A3) - Fibers longer than 5 µm; diameter less than 3 µm; aspect ratio greater than 5:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective) phase contrast illumination.  
- Biosoluble glass mineral wool - See section 3.

### Exposure controls

Engineering measures: Maintain sufficient mechanical or natural ventilation to assure fiber concentrations remain below PEL/TLV Use local exhaust if necessary. Power equipment should be equipped with properly designed dust collection devices.

Eye/face protection: Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments.

Skin protection: Minimize direct contact with skin in order to prevent mechanical itching.

Respiratory equipment: In dusty environments, use suitable respiratory protection.

Hygiene measures: After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching.

Environmental Exposure Controls: Not relevant.

\* Heat-Up Precautions: When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. The duration of release is dependant upon the thickness of the insulation, binder content and the temperature applied. Adequate ventilation should be provided. In confined spaces or where ventilation is not possible, occupants should wear appropriate self-contained breathing apparatus.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<u>Appearance:</u>	Solid.
<u>Form:</u>	Rolls., loose fiber, Panel.
<u>Color:</u>	Brown.
<u>Odor:</u>	Not relevant.
<u>Odor threshold:</u>	Not relevant.
<u>pH:</u>	Not relevant.
<u>Melting point / freezing point:</u>	Not relevant.
<u>Initial boiling point and boiling range:</u>	Not relevant.
<u>Flash point:</u>	Not relevant.
<u>Auto Ignition Temperature (°F)</u>	Not relevant.
<u>Flammability (solid, gas):</u>	Not relevant.
<u>Flammability limit - lower (%):</u>	Not relevant.
<u>Flammability limit - upper (%):</u>	Not relevant.
<u>Vapor pressure:</u>	Not relevant.
<u>Vapor density:</u>	Not relevant.
<u>Evaporation rate:</u>	Not relevant.
<u>Relative density:</u>	7 - 96 kg/m <sup>3</sup>
<u>Partition coefficient (n-octanol/water):</u>	Not relevant.
<u>Solubility:</u>	Generally chemically inert and insoluble in water.
<u>Decomposition temperature (°F):</u>	Not relevant.
<u>Viscosity:</u>	Not relevant.
<hr/>	
<u>Other data:</u>	Nominal diameter of fibers 3 - 8µm
	Length weight geometric mean diameter less 2 standard errors: < 6 µm
	Orientation of fibers: Random

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## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

None.

### Chemical stability

Binder will decompose above 400°F

### Possibility of hazardous reactions

None.

### Conditions to avoid

Heating above 400°F

### Incompatible materials

Hydrofluoric acid will react with and dissolve glass.

### Hazardous decomposition products

None in normal conditions of use.

When heated to temperatures above 400°F for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate eyes and the respiratory system. The duration of release is dependant upon the thickness of the insulation, binder content and the temperature applied Adequate ventilation should be provided. In confined spaces or where ventilation is not possible, occupants should wear appropriate self-contained breathing apparatus.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on toxicological effects

Ingestion: Non-hazardous when ingested.  
Inhalation: Mechanical irritation to upper respiratory tract.  
Skin contact: Mechanical irritation to skin.  
Eye contact: Mechanical irritation to eyes.  
Symptoms: Contact with skin, eyes and upper respiratory system may cause mechanical irritation.  
Biosoluble glass mineral wool is classified as a nuisance dust by OSHA.

#### Information on toxicological effects:

Acute toxicity: No data were identified for the product as a whole.

Data are for constituents:

Product name: Biosoluble glass mineral wool

Result - LD50

Species - N/A.

Dose - N/A.

Exposure - N/A.

Product name: Thermo set, inert polymer bonding agent derived from plant starches.

Result -

Species - N/A.

Dose - N/A.

Exposure - N/A.

Serious eye damage/irritation: May cause mechanical irritation to eyes.  
Skin Corrosion/Irritation: May cause mechanical irritation to skin.  
Respiratory or skin sensitization: No data were identified for this product or its constituents.  
Germ cell mutagenicity: No data were identified for this product or its constituents.

Carcinogenicity: Results from a biopersistence test by intratracheal instillation has shown that fibers in this product longer than 20 µm have a weighted half-life less than 40 days, thus this product is not classified as a carcinogen. None of the components of this product are listed as a carcinogen by OSHA, IARC or NTP.

Reproductive Toxicity: No data available for this product or its constituents.  
Developmental Effects: No data were identified for this product or its constituents.  
STOT - Single exposure:: No data were identified for this product or its constituents.  
STOT - Repeated exposure:: No data were identified for this product or its constituents.  
Aspiration hazard: Not relevant.

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## SECTION 12: ECOLOGICAL INFORMATION

### **Toxicity**

This product is not ecotoxic to air, water or soil, by composition.

### **Persistence and degradability**

Inert inorganic product with Thermo set, inert polymer bonding agent derived from plant starches; 0 - 13%

### **Bioaccumulative potential**

Will not bio-accumulate.

### **Mobility in soil**

Not considered mobile. Less than 1% leachable organic carbon if landfilled.

### **Results of PBT and vPvB assessment**

Not relevant.

### **Other adverse effects**

None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

### **Waste treatment methods**

Waste from residues: Dispose of in accordance with all applicable regulations.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal methods: This product is not regulated under RCRA Hazardous Waste Regulations. May be disposed in landfill. If unsure, contact the local office of the USEPA, your local public health department or the local landfill regulators.

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## SECTION 14: TRANSPORT INFORMATION

### UN number

Not regulated.

### UN proper shipping name

Not regulated.

### Transport hazard class(es)

Not regulated.

### Packing group

Not regulated.

### Environmental hazards

Not regulated.

### Special precautions for user

Not regulated.

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not regulated.

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## SECTION 15: REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

OSHA Status: Labeling: This product is regulated as a nuisance dust under OSHA criteria.

TSCA listed: All components of this product are listed or exempt from listing on the TSCA inventory.

CERCLA Reportable Quantity: Not regulated.

SARA Title III:

Section 302 Extremely Hazardous: Not regulated.

Section 311/312 Hazard Categories: Not regulated.

Section 313 Toxic Chemicals: Not listed.

California Safe Drinking Water and Toxic Enforcement Act (Prop. 65): This product is exempt from labeling requirements under this Act.

In accordance with industry practice, Knauf Insulation has decided to continue to provide its customers with the appropriate information for the purpose of assuring safe handling and use of mineral wool throughout the product life.

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## SECTION 16: OTHER INFORMATION

Label in accordance with OSHA HCS (2012): This product is not classified as hazardous.

Abbreviations and acronyms used in the safety data sheet:

CAS: Chemical Abstract Service  
CFR: Code of Federal Regulations  
EUCEB: European Certification Board for Mineral Wool Products  
IARC: International Agency for Research on Cancer  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration (United States)  
PEL: Permissible Exposure Limit  
PBT: Persistent, Bioaccumulative and Toxic  
SARA: Superfund Amendments and Reauthorization Act  
SDS: Safety Data Sheet  
STEL: Short Term Exposure Limit  
TLV: Threshold Limit Value  
TSCA: Toxic Substances Control Act  
USEPA: United States Environmental Protection Agency

All products manufactured by Knauf Insulation are made of non-classified fibers and are certified by EUCEB.

Products meeting EUCEB certification requirements can be recognised by the EUCEB logo printed on the packaging.

Further information can be obtained from:

[www.euceb.org](http://www.euceb.org)  
[www.knaufinsulation.com](http://www.knaufinsulation.com)



Additional information:

Change to Sections: 8  
New document format Date: 2015-10-26  
Date of previous revisions: 2015-08-21, 2015-04-30

Moreover, in 2001, the IARC, reclassified glass mineral wool fibers from Group 2B (possibly carcinogenic) to «not classifiable as to their carcinogenicity to humans (Group 3)». (See Monograph Vol 81, <http://monographs.iarc.fr/>).

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The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

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# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 10.02.2015

Revision: 10.02.2015

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Eco-Coating
- **Article number:** 55-40, 55-41
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Coating compound/ Surface coating/ paint
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Mon-Eco Industries, Inc.  
5 Joanna Ct.  
East Brunswick, NJ 08816  
Phone: 732-257-7942
- **1.4 Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924, +1 (813)248-0585



MON-ECO INDUSTRIES, INCORPORATED

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).  
The following classifications are applicable only to the general GHS regulations and not the specific CLP regulation: H412.  
The following classifications are applicable only to OSHA (USA) regulations and not the specific CLP regulation: H350.



health hazard

Carc. 1B                      H350 May cause cancer.



Skin Irrit. 2                      H315 Causes skin irritation.  
Eye Irrit. 2                      H319 Causes serious eye irritation.

Aquatic Chronic 3      H412 Harmful to aquatic life with long lasting effects.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36:                      Irritating to eyes.

R52/53:                Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

(Contd. on page 2)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 10.02.2015

Revision: 10.02.2015

Trade name: Eco-Coating

(Contd. of page 1)

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



health hazard (US GHS only)



GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

titanium dioxide

antimony trioxide

Petroleum Distillates

· **Hazard statements**

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H412.

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H350.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H350 May cause cancer.

H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P281 Use personal protective equipment as required.

P264 Wash thoroughly after handling.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P302+P352 IF ON SKIN: Wash with plenty of water.

P405 Store locked up.

(Contd. on page 3)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 10.02.2015

Revision: 10.02.2015

**Trade name: Eco-Coating**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations. (Contd. of page 2)

· **Additional information:**

Restricted to professional users.

· **Hazard description:**

· **WHMIS-symbols:**

D2B - Toxic material causing other toxic effects



· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = \*1

Fire = 0

Reactivity = 0

· **HMIS Long Term Health Hazard Substances**

13463-67-7	titanium dioxide
1309-64-4	antimony trioxide

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 25767-47-9	Styrene acrylate polymer ⊗ Xi R36 ⚠ Eye Irrit. 2, H319	10-25%
	Vinyl-Acrylic copolymer ⊗ Xi R36/38 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	5-10%

(Contd. on page 4)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 10.02.2015

Revision: 10.02.2015

**Trade name: Eco-Coating**

(Contd. of page 3)

CAS: 9003-29-6 NLP: 500-004-7	Butene, homopolymer (products derived from either/or But-1-ene/ But-2-ene) Xn R65;  Xi R38 Asp. Tox. 1, H304 Skin Irrit. 2, H315	< 5%
CAS: 25265-77-4 EINECS: 246-771-9	2,2,4-trimethyl-1,3-pentanediol mono(2-methylpropanoate)	< 5%
CAS: 9016-45-9 NLP: 500-024-6	4-nonylphenyl-polyethylene glycol Xi R36/38;  N R51/53 Aquatic Chronic 2, H411 Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 1%
CAS: 1309-64-4 EINECS: 215-175-0 Index number: 051-005-00-X	antimony trioxide Xn R40 Carc. Cat. 3 Carc. 2, H351	< 1%
	Petroleum Distillates Carc. 1B, H350	< 1%

· **SVHC**

9016-45-9 | 4-nonylphenyl-polyethylene glycol

· **Dangerous Components (Alternative Classifications):**

CAS: 13463-67-7 EINECS: 236-675-5	titanium dioxide	Carc. 2, H351	< 5%
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· **Additional information:** For the wording of the listed risk phrases refer to section 16.· **Notable Trace Components (≤ 0,1% w/w)**

CAS: 1897-45-6 EINECS: 217-588-1 Index number: 608-014-00-4	chlorothalonil (ISO) T+ R26;  Xn R40;  Xi R37-41;  Xi R43;  N R50/53 Carc. Cat. 3 Acute Tox. 2, H330 Carc. 2, H351 Eye Dam. 1, H318 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Sens. 1, H317; STOT SE 3, H335
---	---

**SECTION 4: First aid measures**· **4.1 Description of first aid measures**· **General information:**

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

· **After inhalation:**

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

· **After skin contact:**

Immediately remove any clothing soiled by the product.

Immediately wash with water and soap and rinse thoroughly.

(Contd. on page 5)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 10.02.2015

Revision: 10.02.2015

Trade name: Eco-Coating

(Contd. of page 4)

If skin irritation is experienced, consult a doctor.

- **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

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

Headache

Irritant to skin and mucous membranes.

Irritant to eyes.

Dizziness

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

- **Hazards**

May cause respiratory irritation.

May cause cancer.

- **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents:**

Foam

Fire-extinguishing powder

Carbon dioxide

Water haze or fog

- **For safety reasons unsuitable extinguishing agents:** None.

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

Formation of toxic gases is possible during heating or in case of fire.

- **5.3 Advice for firefighters**

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

- **Additional information** No further relevant information available.

## SECTION 6: Accidental release measures

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

Ensure adequate ventilation

Particular danger of slipping on leaked/spilled product.

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

- **6.2 Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.

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Inform respective authorities in case of seepage into water course or sewage system.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Send for recovery or disposal in suitable receptacles.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

Prevent formation of aerosols.

· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Avoid storage near extreme heat, ignition sources or open flame.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.

Do not store together with acids.

Store away from oxidising agents.

· **Further information about storage conditions:** Keep container tightly sealed.

· **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**1309-64-4 antimony trioxide**

PEL (USA)	Long-term value: 0,5 mg/m <sup>3</sup>
REL (USA)	Long-term value: 0,5 mg/m <sup>3</sup> as Sb
TLV (USA)	Long-term value: 0,5 mg/m <sup>3</sup> as Sb; Production: L
EL (Canada)	ACGIH A2, IARC 2B

· **DNELs** No further relevant information available.

· **PNECs** No further relevant information available.

· **Additional information:** The lists valid during the making were used as basis.

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## · 8.2 Exposure controls

### · Personal protective equipment:

#### · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

#### · Respiratory protection:

Suitable respiratory protective device recommended.

Use suitable respiratory protective device when aerosol or mist is formed.

Use suitable respiratory protective device when high concentrations are present.

For spills, respiratory protection may be advisable.

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

#### · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

#### · Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### · Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

#### · Eye protection:



Safety glasses

#### · Body protection: Protective work clothing

#### · Limitation and supervision of exposure into the environment

No further relevant information available.

#### · Risk management measures

See Section 7 for additional information.

No further relevant information available.

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## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
  - Form: Liquid
  - Colour: Not determined.
- **Odour:** Mild
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
  - Melting point/Melting range: Not Determined.
  - Boiling point/Boiling range: 212° F/ 100 °C (414° F/ 212 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Auto/Self-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.
- **Vapour pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)
- **Density at 20 °C (68 °F):** 1,39 g/cm<sup>3</sup> (11,6 lbs/gal)
- **Relative density** Not determined.
- **Vapour density at 20 °C (68 °F)** > 1 g/cm<sup>3</sup> (> 8,345 lbs/gal) (AIR = 1)
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- **Solvent content:**
  - VOC content: 1,7 %
- **9.2 Other information** No further relevant information available.

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## SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**  
Toxic fumes may be released if heated above the decomposition point.  
Reacts with strong acids and oxidising agents.
- **10.4 Conditions to avoid**  
Keep away from heat and direct sunlight.  
Store away from oxidising agents.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Hydrogen chloride (HCl)

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:** None.
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitisation:** No sensitising effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Irritant
- **Acute effects (acute toxicity, irritation and corrosivity):** Vapours have narcotic effect.
- **Repeated dose toxicity:** May cause damage to organs through prolonged or repeated exposure.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**  
Carc. 1B

## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** The product contains materials that are harmful to the environment.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish

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- **Additional ecological information:**
- **General notes:**  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Harmful to aquatic organisms  
Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.  
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

- **14.1 UN-Number**
- **DOT, ADR, ADN, IMDG, IATA** Not Regulated
- **14.2 UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA** Not Regulated
- **14.3 Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class** Not Regulated
- **14.4 Packing group**
- **DOT, ADR, IMDG, IATA** Not Regulated
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
- **14.6 Special precautions for user** Not applicable.
- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** -

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## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

### · Section 355 (extremely hazardous substances):

None of the ingredients are listed.

### · Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

### · TSCA (Toxic Substances Control Act):

All ingredients are listed.

### · Proposition 65 (California):

#### · Chemicals known to cause cancer:

13463-67-7	titanium dioxide
1309-64-4	antimony trioxide
1897-45-6	chlorothalonil (ISO)

#### · Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

#### · Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

#### · Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

### · Carcinogenic Categories

#### · EPA (Environmental Protection Agency)

None of the ingredients are listed.

#### · IARC (International Agency for Research on Cancer)

13463-67-7	titanium dioxide	2B
1309-64-4	antimony trioxide	2B
9002-86-2	polyvinyl chloride	3

#### · TLV (Threshold Limit Value established by ACGIH)

13463-67-7	titanium dioxide	A4
1309-64-4	antimony trioxide	A2
9002-86-2	polyvinyl chloride	A4

#### · NIOSH-Ca (National Institute for Occupational Safety and Health)

13463-67-7	titanium dioxide
------------	------------------

### · Canada

#### · Canadian Domestic Substances List (DSL)

All ingredients are listed.

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<b>· Canadian Ingredient Disclosure list (limit 0.1%)</b>
None of the ingredients are listed.

<b>· Canadian Ingredient Disclosure list (limit 1%)</b>
None of the ingredients are listed.

**· Other regulations, limitations and prohibitive regulations**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

<b>· Substances of very high concern (SVHC) according to REACH, Article 57</b>		
<table border="1" style="width: 100%;"> <tr> <td style="width: 20%;">9016-45-9</td> <td>4-nonylphenyl-polyethylene glycol</td> </tr> </table>	9016-45-9	4-nonylphenyl-polyethylene glycol
9016-45-9	4-nonylphenyl-polyethylene glycol	

**· 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**· Relevant phrases**

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H350 May cause cancer.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

R36 Irritating to eyes.

R36/38 Irritating to eyes and skin.

R38 Irritating to skin.

R40 Limited evidence of a carcinogenic effect.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Carc. 1B: Carcinogenicity, Hazard Category 1B

Carc. 2: Carcinogenicity, Hazard Category 2

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Asp. Tox. 1: Aspiration hazard, Hazard Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

**Sources**

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: [www.chemtelinc.com](http://www.chemtelinc.com)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA  
GHS

Printing date 04.11.2015

Revision: 04.11.2015

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Eco-Hanger Grip Adhesive
- **Article number:** 22-15
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Adhesive.
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Mon-Eco Industries, Inc.  
5 Joanna Ct.  
East Brunswick, NJ 08816  
Phone: 732-257-7942
- **1.4 Emergency telephone number:**  
ChemTel Inc.  
+1 (800)255-3924, +1 (813)248-0585



MON-ECO INDUSTRIES, INCORPORATED

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).  
The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H361fd, H411.  
The following classifications are applicable only to OSHA (USA) regulations and not the specific CLP regulation: H361.



Repr. 2 H361: Suspected of damaging fertility or the unborn child.



flame

Flam. Liq. 2      H225      Highly flammable liquid and vapour.



health hazard

Repr. 2	H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
STOT RE 2	H373	May cause damage to the central nervous system through prolonged or repeated exposure.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.



environment

Aquatic Chronic 2 H411      Toxic to aquatic life with long lasting effects.

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Skin Irrit. 2      H315      Causes skin irritation.  
STOT SE 3      H336      May cause drowsiness or dizziness.

## 2.2 Label elements

### Labelling according to Regulation (EC) No 1272/2008

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The product is classified and labelled according to the CLP regulation.

### Hazard pictograms

The following pictogram(s) are only for use within Europe: GHS09.



GHS02 GHS07 GHS08 GHS09

### Signal word Danger

### Hazard-determining components of labelling:

toluene  
n-hexane  
cyclohexane

### Hazard statements

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H361fd, H411.

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H361.

H361: Suspected of damaging fertility or the unborn child.

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H336 May cause drowsiness or dizziness.

H373 May cause damage to the central nervous system through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P370+P378 In case of fire: Use foam, powder, or carbon dioxide for extinction.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P314 Get medical advice/attention if you feel unwell.

P403+P235 Store in a well-ventilated place. Keep cool.

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according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA  
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P501

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

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- **Additional information:**  
Restricted to professional users.
- **NFPA ratings (scale 0 - 4)**



Health = 1  
Fire = 3  
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = \*2  
Fire = 3  
Reactivity = 0

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

### Dangerous components:

CAS: 108-88-3 EINECS: 203-625-9 Index number: 601-021-00-3	toluene Flam. Liq. 2, H225 Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304 Skin Irrit. 2, H315; STOT SE 3, H336	10-25%
CAS: 110-54-3 Index number: 601-007-01-4	Hexanes Flam. Liq. 2, H225 Acute Tox. 4, H332	10-25%
CAS: 110-82-7 EINECS: 203-806-2 Index number: 601-017-00-1	cyclohexane Flam. Liq. 2, H225 Asp. Tox. 1, H304 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Irrit. 2, H315; STOT SE 3, H336	< 5%

- **Additional information:**  
For the listed ingredient(s), the identity and exact percentages are being withheld as a trade secret.  
For the wording of the listed Hazard Statements refer to section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

#### After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

In case of irregular breathing or respiratory arrest provide artificial respiration.

In case of unconsciousness place patient stably in side position for transportation.

#### After skin contact:

Immediately remove any clothing soiled by the product.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation is experienced, consult a doctor.

#### After eye contact:

Remove contact lenses if worn, if possible.

Rinse opened eye for several minutes under running water. Then consult a doctor.

#### After swallowing:

Rinse out mouth and then drink plenty of water.

A person vomiting while laying on their back should be turned onto their side.

Do not induce vomiting; call for medical help immediately.

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

Headache

Dizziness

Coughing

Breathing difficulty

Irritant to skin and mucous membranes.

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

#### Hazards

Danger of disturbed cardiac rhythm.

Danger of convulsion.

Danger of impaired breathing.

Vapours may cause drowsiness and dizziness.

Causes damage to organs through prolonged or repeated exposure.

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

May produce a cardiotoxic / hemotoxic effect.

Contains toluene.

May cause neurotoxic effects.

If swallowed or in case of vomiting, danger of entering the lungs.

If necessary oxygen respiration treatment.

Medical supervision for at least 48 hours.

Monitor circulation, possible shock treatment.

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Later observation for pneumonia and pulmonary oedema.

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## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Eliminate all ignition sources if safe to do so.  
Cool endangered receptacles with water spray.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Use respiratory protective device against the effects of fumes/dust/aerosol.  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Keep away from ignition sources.  
Protect from heat.
- **6.2 Environmental precautions:**  
Do not allow to enter sewers/ surface or ground water.  
Prevent from spreading (e.g. by damming-in or oil barriers).  
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).  
Dispose contaminated material as waste according to section 13.  
Used rags or other cleaning materials should be soaked with water and placed in a sealed container.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Use only in well ventilated areas.  
Keep receptacles tightly sealed.  
Rags / metal wools / cuttings / shavings and waste papers soaked with product must be placed in a sealed, metal container rated for flammable waste.

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- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Fumes can combine with air to form an explosive mixture.  
Flammable gas-air mixtures may form in empty receptacles.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool location.  
Provide ventilation for receptacles.  
Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from oxidising agents.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed receptacles.  
Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see section 7.
- **8.1 Control parameters**

### Ingredients with limit values that require monitoring at the workplace:

#### 108-88-3 toluene

PEL (USA)	Long-term value: 200 ppm Ceiling limit: 300; 500* ppm *10-min peak per 8-hr shift
REL (USA)	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
TLV (USA)	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm BEI
EL (Canada)	Long-term value: 20 ppm R
EV (Canada)	Long-term value: 20 ppm

#### 110-54-3 Hexanes

IOELV (EU)	Long-term value: 72 mg/m <sup>3</sup> , 20 ppm
PEL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 500 ppm
REL (USA)	Long-term value: 180 mg/m <sup>3</sup> , 50 ppm
TLV (USA)	Long-term value: 176 mg/m <sup>3</sup> , 50 ppm Skin; BEI
EL (Canada)	Long-term value: 20 ppm Skin

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EV (Canada) Long-term value: 176 mg/m<sup>3</sup>, 50 ppm**110-54-3 n-hexane**

IOELV (EU)	Long-term value: 72 mg/m <sup>3</sup> , 20 ppm
PEL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 500 ppm
REL (USA)	Long-term value: 180 mg/m <sup>3</sup> , 50 ppm
TLV (USA)	Long-term value: 176 mg/m <sup>3</sup> , 50 ppm Skin; BEI
EL (Canada)	Long-term value: 20 ppm Skin
EV (Canada)	Long-term value: 176 mg/m <sup>3</sup> , 50 ppm

**110-82-7 cyclohexane**

IOELV (EU)	Long-term value: 700 mg/m <sup>3</sup> , 200 ppm
PEL (USA)	Long-term value: 1050 mg/m <sup>3</sup> , 300 ppm
REL (USA)	Long-term value: 1050 mg/m <sup>3</sup> , 300 ppm
TLV (USA)	Long-term value: 344 mg/m <sup>3</sup> , 100 ppm
EL (Canada)	Long-term value: 100 ppm
EV (Canada)	Long-term value: 100 ppm

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.

**Ingredients with biological limit values:****108-88-3 toluene**

BEI (USA)	0,02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene
	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

**110-54-3 Hexanes**

BEI (USA)	0,4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2,5-Hexanedione without hydrolysis
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## 110-54-3 n-hexane

BEI (USA)	0,4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2,5-Hexanedione without hydrolysis
-----------	---

### · 8.2 Exposure controls

#### · Personal protective equipment:

#### · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Pregnant women should strictly avoid inhalation or skin contact.

Avoid contact with the eyes and skin.

#### · Respiratory protection:

Suitable respiratory protective device recommended.

Use suitable respiratory protective device when high concentrations are present.

NIOSH or EN approved organic vapour respirator equipped with a dust/mist prefilter should be used.

#### · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

#### · Eye protection:



Safety glasses

#### · Body protection: Protective work clothing

#### · Limitation and supervision of exposure into the environment

No further relevant information available.

#### · Risk management measures See Section 7 for additional information.

## SECTION 9: Physical and chemical properties

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

#### · General Information

#### · Appearance:

Form: Pasty

Colour: Brown

· Odour: Mild

· Odour threshold: Not determined.

· pH-value: Not determined.

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· <b>Change in condition</b> <b>Melting point/Melting range:</b> <b>Boiling point/Boiling range:</b>	Not determined. 65 °C (149 °F)
· <b>Flash point:</b>	< -18 °C (< -0 °F)
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Auto/Self-ignition temperature:</b>	Not determined.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Self-igniting:</b>	Product is not self-igniting.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b> <b>Lower:</b> <b>Upper:</b>	1,2 Vol % 6.9 Vol %
· <b>Vapour pressure at 20 °C (68 °F):</b>	160 hPa (120 mm Hg)
· <b>Density:</b> · <b>Relative density</b> · <b>Vapour density</b> · <b>Evaporation rate</b>	Not determined. Not determined. Not determined. Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b> <b>Dynamic:</b> <b>Kinematic:</b> · <b>9.2 Other information</b>	Not determined. Not determined. No further relevant information available.

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Keep away from heat and direct sunlight.
- **10.3 Possibility of hazardous reactions**  
Flammable.  
Reacts violently with oxidising agents.  
Used empty containers may contain product gases which form explosive mixtures with air.  
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.  
Toxic fumes may be released if heated above the decomposition point.
- **10.4 Conditions to avoid**  
Keep ignition sources away - Do not smoke.  
Store away from oxidising agents.

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- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Hydrocarbons

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

### · LD/LC50 values relevant for classification:

#### 108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4h	5320 mg/l (mouse)

#### 110-82-7 cyclohexane

Oral	LD50	12705 mg/kg (rat)
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- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation** Slight irritant effect on eyes.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Acute effects (acute toxicity, irritation and corrosivity):** Vapours have narcotic effect.
- **Repeated dose toxicity:**  
Repeated exposure may cause skin dryness or cracking.  
May cause neurotoxic effects.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**  
Suspected of damaging fertility. Suspected of damaging the unborn child.
- **STOT-single exposure**  
May cause drowsiness or dizziness.
- **STOT-repeated exposure**  
May cause damage to the central nervous system through prolonged or repeated exposure.
- **Aspiration hazard**  
May be fatal if swallowed and enters airways.

## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** Toxic for aquatic organisms
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**
  - Do not allow product to reach ground water, water course or sewage system.
  - Danger to drinking water if even small quantities leak into the ground.
  - Also poisonous for fish and plankton in water bodies.
  - Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
  - Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
  - Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
  - The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

- **14.1 UN-Number**
- **DOT**
  - UN1133
  - Product is additionally classified as a MARINE POLLUTANT based on MARPOL and DOT rules. Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.
- **ADR, IMDG, IATA**
  - UN1133

- **14.2 UN proper shipping name**



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 5 L (1.3 gal).

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· DOT, IATA	Adhesives
· ADR	1133 ADHESIVES, ENVIRONMENTALLY HAZARDOUS
· IMDG	ADHESIVES, MARINE POLLUTANT

## · 14.3 Transport hazard class(es)

## · DOT



· Class	3 Flammable liquids.
· Label	3

## · ADR



· Class	3 (F1) Flammable liquids.
· Label	3

## · IMDG



· Class	3 Flammable liquids.
· Label	3

## · IATA



· Class	3 Flammable liquids.
· Label	3

## · 14.4 Packing group

· DOT, ADR, IMDG, IATA	II
------------------------	----

## · 14.5 Environmental hazards:

Product contains environmentally hazardous substances: cyclohexane, n-hexane

## · Marine pollutant:

Yes

## · Special marking (ADR):

Symbol (fish and tree)

Symbol (fish and tree)

## · 14.6 Special precautions for user

Warning: Flammable liquids.

## · Danger code (Kemler):

33

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· EMS Number:	F-E,S-D
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Transport category	2
· Tunnel restriction code	D/E
· IATA	Limited quantity by air: 1L
· UN "Model Regulation":	UN 1133 ADHESIVES, 3, II

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

### · Section 355 (extremely hazardous substances):

None of the ingredients are listed.

### · Section 313 (Specific toxic chemical listings):

108-88-3	toluene
110-54-3	Hexanes
110-82-7	cyclohexane

### · TSCA (Toxic Substances Control Act):

All ingredients are listed.

### · Proposition 65 (California):

### · Chemicals known to cause cancer:

None of the ingredients are listed.

### · Chemicals known to cause reproductive toxicity for females:

108-88-3	toluene
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### · Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

### · Chemicals known to cause developmental toxicity:

108-88-3	toluene
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### · Carcinogenic Categories

### · EPA (Environmental Protection Agency)

108-88-3	toluene	II
110-54-3	Hexanes	II
110-54-3	n-hexane	II
110-82-7	cyclohexane	I

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· **IARC (International Agency for Research on Cancer)**

108-88-3	toluene	3
9003-55-8	styrene-butadiene latex	3

· **TLV (Threshold Limit Value established by ACGIH)**

108-88-3	toluene	A4
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

· **Canada**· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

108-88-3	toluene
110-54-3	Hexanes
110-82-7	cyclohexane

· **Directive 2012/18/EU**· **Named dangerous substances - ANNEX I**

None of the ingredients are listed.

· **Other regulations, limitations and prohibitive regulations**· **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H225 Highly flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H361d Suspected of damaging the unborn child.
- H373 May cause damage to the central nervous system through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
DNEL: Derived No-Effect Level (REACH)  
PNEC: Predicted No-Effect Concentration (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
SVHC: Substances of Very High Concern  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 2: Flammable liquids, Hazard Category 2  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
Repr. 2: Reproductive toxicity, Hazard Category 2  
Repr. 2: Reproductive toxicity, Hazard Category 2  
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2  
Asp. Tox. 1: Aspiration hazard, Hazard Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1  
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

**Sources**

SDS Prepared by:  
ChemTel Inc.  
1305 North Florida Avenue  
Tampa, Florida USA 33602-2902  
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573  
Website: [www.chemtelinc.com](http://www.chemtelinc.com)

# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	EPOXY PT 4PK 5300 TOPCOAT ACTIVATOR	<b>Revision Date:</b>	8/3/2015
<b>Product Identifier:</b>	5301604	<b>Supersedes Date:</b>	9/17/2014
<b>Product Use/Class:</b>	Topcoat Activator/Waterbased Epoxy		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Warning

### Possible Hazards

4% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.

### GHS LABEL PRECAUTIONARY STATEMENTS

P261	Avoid breathing dust, fumes, gases, mists, vapors, or spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.

### GHS SDS PRECAUTIONARY STATEMENTS

P363	Wash contaminated clothing before reuse.
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## 3. Composition/Information On Ingredients

**HAZARDOUS SUBSTANCES**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. % Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Ethylene Glycol Monopropyl Ether	2807-30-9	10-25	GHS06	H311-319-331
Glacial Acetic Acid	64-19-7	2.5-10	GHS02-GHS05-GHS07	H226-312-314-332
Formaldehyde	50-00-0	0.1-1.0	GHS05-GHS06-GHS08	H302-311-314-317-330-335-351
Methanol	67-56-1	0.1-1.0	GHS02-GHS06-GHS08	H225-311-331-370

**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:** If swallowed, rinse mouth with water. If feeling unwell, get medical attention. Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**5. Fire-fighting Measures**

**EXTINGUISHING MEDIA:** Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Keep containers tightly closed. FLASH POINT IS TESTED TO BE GREATER THAN 200 DEGREES F. No unusual fire or explosion hazards noted.

**SPECIAL FIREFIGHTING PROCEDURES:** Water may be used to cool closed containers to prevent buildup of steam. If water is used, fog nozzles are preferred.

**6. Accidental Release Measures**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations. Do not incinerate closed containers

**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:** Store in a dry, well ventilated place. Keep container tightly closed when not in use.

**8. Exposure Controls/Personal Protection**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Weight % Less Than</u>	<u>ACGIH TLV- TWA</u>	<u>ACGIH TLV- STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL- CEILING</u>
Ethylene Glycol Monopropyl Ether	2807-30-9	20.0	N.E.	N.E.	N.E.	N.E.
Glacial Acetic Acid	64-19-7	5.0	10 ppm	15 ppm	10 ppm	N.E.
Methanol	67-56-1	1.0	200 ppm	250 ppm	200 ppm	N.E.
Formaldehyde	50-00-0	1.0	N.E.	N.E.	0.75 ppm	N.E.

**PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

**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.

**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>Appearance:</b>	Liquid	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	1.042	<b>pH:</b>	N.D.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Soluble	<b>Partition Coefficient, n-octanol/water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	1.6 - 19.9
<b>Boiling Range, °C:</b>	100 - 177	<b>Flash Point, °C:</b>	94
<b>Flammability:</b>	Does not Support Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Slower than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalis.

**HAZARDOUS DECOMPOSITION:** When heated to decomposition, it emits acrid smoke and irritating fumes.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## 11. Toxicological information

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Causes eye irritation. Irritating, and may injure eye tissue if not removed promptly.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Low hazard for usual industrial handling or commercial handling by trained personnel.

**EFFECTS OF OVEREXPOSURE - INHALATION:** High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Substance may be harmful if swallowed. Poison, may be fatal or cause blindness if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Contains: Formaldehyde. Formaldehyde is classified as an OSHA carcinogen, NTP class 2 carcinogen and an IARC class 2A carcinogen. Risk of cancer depends on duration and level of exposure, and the actual concentration of formaldehyde in the formula.

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
2807-30-9	Ethylene Glycol Monopropyl Ether	N.I.	870 mg/kg Rabbit	N.I.
64-19-7	Glacial Acetic Acid	3310 mg/kg Rat	1112 mg/kg Rabbit	11.4 mg/L Rat
50-00-0	Formaldehyde	500 mg/kg Rat	270 mg/kg Rabbit	0.578 mg/L Rat
67-56-1	Methanol	5628 mg/kg Rat	N.I.	83.2 mg/L Rat



N.I. - No Information

## 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.	N.A.	N.A.	N.A.
Proper Shipping Name:	Not Regulated	Not Regulated	Not Regulated	Not Regulated
Hazard Class:	N.A.	N.A.	N.A.	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	No	No	No	No

## 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:

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>
Ethylene Glycol Monopropyl Ether	2807-30-9
Methanol	67-56-1
Formaldehyde	50-00-0

#### 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.

**16. Other Information****HMIS RATINGS**

**Health:** 2\*      **Flammability:** 2      **Physical Hazard:** 0      **Personal Protection:** X

**NFPA RATINGS**

**Health:** 2      **Flammability:** 2      **Instability:** 0

**VOLATILE ORGANIC COMPOUNDS, g/L:** 357

**SDS REVISION DATE:** 8/3/2015

**REASON FOR REVISION:** Product Composition Changed  
Substance and/or Product Properties Changed in Section(s):  
01 - Identification  
02 - Hazard Identification  
05 - Fire-fighting Measures  
09 - Physical & Chemical Properties  
15 - Regulatory Information  
16 - Other Information  
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

# Safety Data Sheet



\* Trusted Quality Since 1921 \*  
www.rustoleum.com

## 1. Identification

<b>Product Name:</b>	EPOXY 1-GL 2PK 5300 WHITE	<b>Revision Date:</b>	9/17/2014
<b>Product Identifier:</b>	5392408	<b>Supersedes Date:</b>	New SDS
<b>Product Use/Class:</b>	Topcoat/Water Based Epoxy		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

**EMERGENCY OVERVIEW:** May cause eye, skin, or respiratory tract irritation. KEEP OUT OF REACH OF CHILDREN. Harmful if inhaled. Causes eye irritation. Use ventilation necessary to keep exposures below recommended exposure limits, if any.

### Classification

### Symbol(s) of Product



### Signal Word

Warning

### GHS HAZARD STATEMENTS

Acute Toxicity, Dermal, category 5	H313	May be harmful in contact with skin.
Skin Irritation, category 2	H315	Causes skin irritation.
Aspiration Hazard, category 2	H305	May be harmful if swallowed and enters airways.
Skin Irritation, category 3	H316	Causes mild skin irritation.
Eye Irritation, category 2B	H320	Causes eye irritation.

### GHS PRECAUTIONARY STATEMENTS

P102	Keep out of reach of children.
P103	Read label before use.
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P335	Brush off loose particles from skin.
P351	Rinse cautiously with water for several minutes.
P374	Fight fire with normal precautions from a reasonable distance.
P402	Store in a dry place.
P321	Specific treatment (see ... on this label).
P352	Wash with plenty of soap and water.
P362	Take off contaminated clothing and wash before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P302+P350	IF ON SKIN: Gently wash with plenty of soap and water.

### 3. Composition/Information On Ingredients

#### HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.% Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Titanium Dioxide	13463-67-7	10-25		
Ethylene Glycol Monopropyl Ether	2807-30-9	10-25	GHS02-GHS06	H226-311
Solvents	Proprietary	1.0-2.5	GHS02	H226

The text for GHS Hazard Statements shown above (if any) is given in the "16. Other Information" section.

### 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:** Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention. If swallowed, rinse mouth with water. If feeling unwell, get medical attention.

### 5. Fire-fighting Measures

**EXTINGUISHING MEDIA:** Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** No unusual fire or explosion hazards noted. Keep containers tightly closed. FLASH POINT IS TESTED TO BE GREATER THAN 200 DEGREES F.

**SPECIAL FIREFIGHTING PROCEDURES:** Water may be used to cool closed containers to prevent buildup of steam. If water is used, fog nozzles are preferred.

### 6. Accidental Release Measures

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations. Do not incinerate closed containers

### 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:** Store in a dry, well ventilated place. Keep container tightly closed when not in use.

## 8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
Titanium Dioxide	13463-67-7	25.0	10 mg/m3	N.E.	15 mg/m3 [Total Dust]	N.E.
Ethylene Glycol Monopropyl Ether	2807-30-9	15.0	25 ppm (Skin)	N.E.	N.E.	N.E.
Solvents	Proprietary	5.0	N.E.	N.E.	N.E.	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

**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.

**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>Appearance:</b>	Liquid	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Mild	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	1.277	<b>pH:</b>	N.D.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Soluble	<b>Partition Coefficient, n-octanol/ water:</b>	No Information
<b>Decomposition Temp., °C:</b>	No Information	<b>Explosive Limits, vol%:</b>	1.3 - 15.8
<b>Boiling Range, °C:</b>	212 - 999	<b>Flash Point, °C:</b>	>93
<b>Flammability:</b>	Does not Support Combustion	<b>Auto-ignition Temp., °C:</b>	No Information
<b>Evaporation Rate:</b>	Slower than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** Avoid contact with strong acid and strong bases.

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalies.

**HAZARDOUS DECOMPOSITION:** When heated to decomposition, it emits acrid smoke and irritating fumes.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## 11. Toxicological information

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Irritating, and may injure eye tissue if not removed promptly.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Low hazard for usual industrial handling or commercial handling by trained personnel.

**EFFECTS OF OVEREXPOSURE - INHALATION:** High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Substance may be harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual

concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010)

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Inhalation, Skin Absorption, Skin Contact

#### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	N.I.	N.I.
2807-30-9	Ethylene Glycol Monopropyl Ether	N.I.	870 mg/kg Rabbit	N.I.

N.I. - No Information

## 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>
<b>UN Number:</b>	N.A.	N.A.	N.A.	N.A.
<b>Proper Shipping Name:</b>	Not Regulated	Not Regulated	Not Regulated	Not Regulated
<b>Hazard Class:</b>	N.A.	N.A.	N.A.	N.A.
<b>Packing Group:</b>	N.A.	N.A.	N.A.	N.A.
<b>Limited Quantity:</b>	No	No	No	No

## 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:

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>
Ethylene Glycol Monopropyl Ether	2807-30-9

#### 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:

<u>Chemical Name</u>	<u>CAS-No.</u>
Sodium Nitrite	7632-00-0

**Inventory Information**

<u>Country</u>	<u>Value</u>
USA (TSCA)	No Information
Canada (DSL)	No Information
Mexico(INSQ)	No Information
Europe (EINECS)	No Information
Japan (ENCS)	No Information
Philippines (PICCS)	No Information
China (IECSC)	No Information
Australia (AICS)	No Information
Korea (KECI)	No Information
New Zealand (NZIOC)	No Information

No Information

**CALIFORNIA PROPOSITION 65:**

Warning: This products contains a substance known to the State of California to cause cancer.

<u>Chemical Name</u>	<u>CAS-No.</u>
Titanium Dioxide	13463-67-7

**CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS**

Warning: This product contains a substance known to the State of California to cause birth defects or other reproductive harm.

No Proposition 65 Reproductive Toxins 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.

**16. Other Information****HMIS RATINGS**

Health:	2*	Flammability:	1	Physical Hazard:	0	Personal Protection:	X
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CANADIAN WHMIS CLASS: D2A

**NFPA RATINGS**

Health:	2	Flammability:	1	Instability	0
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VOLATILE ORGANIC COMPOUNDS, g/L: 196

MSDS REVISION DATE: 9/17/2014

REASON FOR REVISION: No Information

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

**Text for GHS Hazard Statements shown in Section 3 describing each ingredient:**

H226	Flammable liquid and vapour.
H311	Toxic in contact with skin.

**Icons for GHS Pictograms shown in Section 3 describing each ingredient:**

GHS02



GHS06



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.



Print Date: 05-11-2015

 FOSTER 81-42 W  
 802395PM

## SAFETY DATA SHEET

REVISION DATE: 04-10-2015

SUPERSEDES: 04-10-2015

### SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER

#### PRODUCT INFORMATION

PRODUCT: FOSTER 81-42 W  
 PRODUCT DESCRIPTION: Adhesive/Coating  
 INTENDED USE: Adhesive  
 PRODUCT IDENTIFIER: 802395PM

#### COMPANY INFORMATION

H.B. Fuller Construction Products Inc.  
 1105 S. Frontenac Street  
 Aurora, IL 60504  
 Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
 Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 2: HAZARDS IDENTIFICATION

#### GHS Hazard Symbols:



**GHS Classification:** Hazardous to the aquatic environment - Acute Category 2; Hazardous to the aquatic environment - Chronic Category 2  
**GHS Hazard Phrases:** May cause harm to breast-fed children.; Toxic to aquatic life.; Toxic to aquatic life with long lasting effects.  
**GHS Precautions:**  
**Safety Precautions:** Obtain special instructions before use. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Avoid release to the environment.  
**First Aid Measures:** IF exposed or concerned: Get medical advice/attention. Collect spillage.  
**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	Classification	Note
C14-17, chlorinated paraffin	85535-85-9	10 - 30	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Acute Tox. 4; H302	
Titanium dioxide	13463-67-7	1 - 5	Carc. 2; H351	* (see below)
Ethyl alcohol	64-17-5	1 - 5	Eye Irrit. 2; H319 Flam. Liq. 2; H225	

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

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Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

### SECTION 4: FIRST AID MEASURES

**IF IN EYES:** Use an eye wash to remove a chemical from your eye regardless of the level of hazard. Flush the affected eye for at least twenty minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Seek medical advice after flushing.

**IF ON SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists.

**IF INHALED:** Remove to fresh air. Call a physician if symptoms persist.

**IF SWALLOWED:** Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

### SECTION 5: FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water spray, foam, dry chemical or carbon dioxide.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.  
**SPECIAL FIRE FIGHTING INSTRUCTIONS:** Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.  
**HAZARDOUS COMBUSTION PRODUCTS:** Chlorine containing gases Carbon dioxide, Carbon monoxide

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**SPECIAL PROTECTION:** No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.  
**METHODS FOR CLEAN-UP:** Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 7: HANDLING AND STORAGE

**Handling:** No special handling instructions due to toxicity.

**Storage:** Store in a cool, dry place. Protect from freezing  
Consult the Technical Data Sheet for specific storage instructions.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMITS:

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Calcium carbonate	* (see below)	No data available.	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)

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Kaolin clay	* (see below)	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Titanium dioxide	* (see below)	10 mg/m3 TWA	15 mg/m3 TWA (total dust)
Ethyl alcohol		No data available. 1000 ppm STEL	1000 ppm TWA; 1900 mg/m3 TWA

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

### ENGINEERING CONTROL METHODS:

**VENTILATION:** Use local exhaust ventilation or other engineering controls to minimize exposures.

**EYE PROTECTION:** Wear safety glasses when handling this product.

**SKIN PROTECTION:** Not normally required. Wear chemically resistant gloves to prevent prolonged or repeated contact.

**GLOVES:** Not normally required. Use nitrile gloves if conditions warrant.

**RESPIRATORY PROTECTION:** Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	White
ODOR:	Sweet Mild
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	Non flammable
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	10.40
SPECIFIC GRAVITY:	1.250
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	42.9
VOC, weight percent	Not determined
VOC, U.S. EPA Method 24, less water and exempt solvents (analytically determined)	10g/liter of material

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FOSTER 81-42 W  
802395PM**SAFETY DATA SHEET****SECTION 10: STABILITY AND REACTIVITY**

STABILITY: Stable under normal conditions.  
CHEMICAL INCOMPATIBILITY: Not established  
HAZARDOUS POLYMERIZATION: Will not occur.  
HAZARDOUS DECOMPOSITION PRODUCTS: Chlorine containing gases Carbon monoxide, carbon dioxide

**SECTION 11: TOXICOLOGICAL INFORMATION****Component Toxicity / Toxicology Data:**

COMPONENT NAME	LD50/LC50
C14-17, chlorinated paraffin	ORAL LD50 RAT 2,000 MG/KG
Calcium carbonate	ORAL LD50 RAT 6,450 MG/KG
Titanium dioxide	ORAL LD50 RAT > 10,000 MG/KG
Ethyl alcohol	INHALATION LC50-4H RAT 124.70 MG/L

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: Can cause minor skin irritation, defatting, and dermatitis.

Serious eye damage / irritation :Can cause minor irritation, tearing and reddening.

Respiratory / skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that is suspected of causing cancer.

Reproductive toxicity: No data available.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-repeated exposure: No data available.

Target organs potentially affected by exposure: Kidneys Liver Lungs Blood Central nervous system

Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Liver disease, Kidney disease, Lung disease, Blood disorders (like anemia)

**SECTION 12: ECOLOGICAL INFORMATION**

OVERVIEW: No ecological information available for this product.  
MOBILITY: No data available.  
PERSISTENCE: No data available.  
BIOACCUMULATION: No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
Ethyl alcohol	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas:

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	13400 - 15100 mg/L [flow-through] <b>Acute Toxicity (Daphnia):</b> 48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static] <b>Acute Toxicity (Algae):</b> Not established
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### SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

### SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

US DOT:	NOT REGULATED
IATA:	NOT REGULATED
IMDG:	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (C14-C17 CHLORINATED PARAFFIN), 9, III, MARINE POLLUTANT

### SECTION 15: REGULATORY INFORMATION

#### INVENTORY STATUS

U.S. EPA TSCA:	This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
CANADIAN CEPA DSL:	The components of this product are included on the DSL or are exempt from DSL requirements.
EUROPEAN REACH:	As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.
AUSTRALIA AICS:	This product contains a component that is not on the Australian Inventory (AICS).
CHINA IECSC INVENTORY:	This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

#### FEDERAL REPORTING

##### EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
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#### STATE REPORTING

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Titanium dioxide (Carcinogen)	13463-67-7	1 - 5
Quartz (Carcinogen)	14808-60-7	0.01 - 0.1

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ISOBUTYL METHYL KETONE	(Carcinogen)	108-10-1	0.01 - 0.1
Formaldehyde	(Carcinogen)	50-00-0	0.001 - 0.01
Acetaldehyde	(Carcinogen)	75-07-0	0.001 - 0.01
Methanol	(Developmental toxin)	67-56-1	0.01 - 0.1
Methyl isobutyl ketone	(Developmental toxin)	108-10-1	0.01 - 0.1

**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's.

**SECTION 16: OTHER INFORMATION**

SDS VERSION DATE: 04-10-2015

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B.Fuller Construction Products, Inc. from its suppliers, and because H.B.Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B.Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B.Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B.Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

**Section 1 - Product and Company Identification****Hazard Label** WARNING label**Company Information**Johns Manville  
Insulation Systems  
P.O. Box 5108  
Denver, CO 80127 USATelephone: 303-978-2000 8:00AM-5:00PM M-F  
Internet Address: <http://www.jm.com>  
Emergency: 800-424-9300 (Chemtrec, In English)**Trade Names:**1000 Series Spin Glas® Board;  
13/16" Micro-Aire® Duct Board;  
800 Series Spin-Glas® Board Insulations;  
Blended Blowing Wool;  
Fabrication Board;  
Grooved Duct Board;  
Hullboard (Incombustible);  
Hullinsul® Fiber Glass Board;  
Incombustible Microlite®;  
Insul-SHIELD® Coated Black;  
Linacoustic® RC;  
Mat-Faced Micro-Aire® Duct Board;Micro-Flex™ Large Diameter Pipe and Tank Wrap;  
Micro-Lok® HP;  
Micro-Lok® Pipe Insulation;  
Micromat Rx™;  
Permacote® Linacoustic® (Types: Standard, HP, and R-300);  
Precipitator Spin Glas®;  
R series Microlite® (plain, FSK, PSK, & vinyl faced);  
Spin Glas® HTB 26 & 23;  
Spiracoustic Plus™;  
SuperDuct™ Boards;  
SuperDuct™ RC Boards**Section 2 - Hazards Identification****Emergency Overview**

Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation and/or congestion--remove individual to fresh air.

In high temperature applications, treatment, curing, or in geographic areas of high heat and humidity, this product may release gases irritating to the eyes, nose and throat.

**Inhalation**

Temporary mechanical irritation may occur upon exposure to dust or fibers released from cutting this product.

Irritation of the upper respiratory tract, coughing, and congestion may occur in extreme exposures. Severe irritation of the mouth, nose, and throat, as well as signs of central nervous system depression (drowsiness, dizziness, headache), may occur upon inhalation of vapors or gases.

**Skin**

Temporary irritation (itching) or redness may occur.

**Ingestion**

This product is not intended to be ingested (eaten). If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

**Eyes**

Temporary irritation (itching) or redness may occur.

**Ears**

Temporary irritation (itching) or redness may occur.

**Primary Routes of Entry (Exposure)**

Eyes, skin, inhalation (breathing dust and fibers) and ingestion.

**Target Organs**

Nose (nasal passages), throat, lungs, skin, eyes

**Medical Conditions Aggravated by Exposure**

Pre-existing chronic respiratory, skin, or eye diseases or conditions.

**Section 3 - Composition/Information on Ingredients**

CAS #	Component	Percent
Not Applicable	Continuous Filament Glass Fiber	1-10**
Not Applicable	Fiber Glass Wool	50-98

Not Available	Non-woven, AP, FSK, PSK, or vinyl facings; or vinyl, acrylic, or latex coatings	0-40
Not Available	Urea extended phenol-formaldehyde binder (cured)	2-18*
Not Available	Urea extended phenol-melamine formaldehyde binder (cured)	2-18*
Not Available	Acrylic Coating (present in SuperDuct RC only)	0-10
25038-59-9	Polyester fiber (present in black products only)	1-10
50-00-0	Formaldehyde	<1
1333-86-4	Carbon black, bound (present in black products only)	<1
1309-64-4	Antimony trioxide	0.1-3

**Component Information**

\* Binder may be either of these.

\*\* Component of scrim facings

Antimony trioxide (fire retardant) may be present in the facings and/or adhesives. Occupational exposure to airborne antimony trioxide is not expected to occur due to product form(s) and intended use(s). Exposure limit is given for reference only.

Formaldehyde may be released by partial hydrolysis of the urea formaldehyde polymer.

**General Product Description**

Gold, yellow, or black fibrous glass blanket, board, or formed shapes, with or without facings.

<b>Section 4 - First Aid Measures</b>
---------------------------------------

**First Aid: Inhalation**

If dust is inhaled in excess of exposure limits referenced in section 8 of this safety data sheet, remove individual to fresh air. Drink water to clear throat, and blow nose to remove dust. A saline spray in the nose may help clear any fibers.

**First Aid: Skin**

Wash gently with soap and water to remove dust and fibers. Alternatively, fibers can be removed from the skin by use of ordinary masking or wrapping tape. Should irritation persist, seek medical attention.

**First Aid: Ingestion**

Rinse mouth with water to remove dust and fibers and drink plenty of water to help reduce irritation. If irritation persists, seek medical attention.

**First Aid: Eyes**

Do not rub or scratch eyes. Dust particles may cause the eye to be scratched. Flush eyes with large amounts of water until irritation subsides. If irritation persists, seek medical attention.

**First Aid: Ears**

Wash exposed skin with soap and water. If irritation develops in the inner ear, seek medical attention.

**First Aid: Notes to Physician**

Dust from the product may cause mechanical irritation of the eyes, skin, and upper respiratory tract. Treat symptomatically. Irritating gases may be released under conditions of high heat or humidity. At high levels, these could cause severe upper respiratory and eye irritation. Formaldehyde gas is a skin and respiratory sensitizer. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

<b>Section 5 - Fire Fighting Measures</b>
---

**Flash Point:** Not applicable**Upper Flammable Limit (UFL):** Not applicable**Auto Ignition:** Not determined**Rate of Burning:** Not determined**General Fire Hazards**

There is no potential for spontaneous fire or explosion. Inorganic glass fibers are naturally non-combustible and non-flammable.

**Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>), water, water fog, dry chemical.

**Fire Fighting Equipment/Instructions**

No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

**Method Used:** Not applicable**Lower Flammable Limit (LFL):** Not applicable**Flammability Classification:** Not determined



**Section 6 - Accidental Release Measures****Clean-Up Procedures**

Pick up large pieces. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation. These procedures will help to minimize potential exposures.

**Section 7 - Handling and Storage****Handling Procedures**

Use protective equipment as described in Section 8 of this safety data sheet when handling uncontained material. Handle in accordance with good industrial hygiene and safety practices.

**Storage Procedures**

Warehouse storage should be in accordance with package directions, if any. Material should be kept clean, dry, and in original packaging.

**Section 8 - Exposure Controls / Personal Protection****Exposure Guidelines****A: General Product Information**

The Occupational Safety and Health Administration (OSHA) has not adopted specific occupational exposure standards for fiber glass. Fiber glass is treated as a nuisance dust and is regulated by OSHA as a particulate not otherwise regulated (total dust) shown in CFR 1910.1000 Table Z-3.

Respirable fraction 5 mg/m<sup>3</sup>

Total dust 15 mg/m<sup>3</sup>

JM has adopted the fiber glass industry voluntary Product Stewardship Program (PSP), formerly the NAIMA-OSHA Health and Safety Partnership Program (HSPP). Under the PSP, JM recommends that exposures be limited to the voluntary concentration of 1 f/cc TWA for fibers longer than 5 microns with a diameter less than 3 microns. This will help minimize potential irritation effects. The PSP also includes the PPE recommendations described below.

**B: Component Exposure Limits****Formaldehyde (50-00-0)**

OSHA: 0.75 ppm TWA

0.5 ppm Action Level; 0.75 ppm TWA; 2 ppm STEL (Irritant and potential cancer hazard - see 29

CFR 1910.1048)

3 ppm TWA (unless specified in 1910.1048)

ACGIH: 0.3 ppm Ceiling

**Carbon black, bound (present in black products only) (1333-86-4)**

OSHA: 3.5 mg/m<sup>3</sup> TWA

3.5 mg/m<sup>3</sup> TWA

ACGIH: 3.5 mg/m<sup>3</sup> TWA

**PERSONAL PROTECTIVE EQUIPMENT****Personal Protective Equipment: Eyes/Face**

Safety glasses with side shields are recommended to keep dust out of the eyes.

**Personal Protective Equipment: Ears**

Use ear protection (earplugs, hood, or earmuffs) to prevent airborne dust or fibers from entering the ear, if necessary.

**Personal Protective Equipment: Skin**

Leather or cotton gloves should be worn to protect against mechanical abrasion. See also Personal Protective Equipment: General, below.

**Personal Protective Equipment: Respiratory**

A NIOSH-approved respirator should be used if ventilation is unavailable, or is inadequate for keeping levels below the applicable exposure limits referenced in Section 8 of this SDS.

**Ventilation**

In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting, milling or other processing to remove airborne dust and fibers.

**Personal Protective Equipment: General**

Wear a cap, a loose-fitting, long-sleeved shirt and long pants to protect skin from irritation. Exposed skin areas should be washed with soap and water after handling or working with fiber glass. Clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiber glass being transferred to other clothing.

**Section 9 - Physical & Chemical Properties**

<b>Appearance:</b>	Gold, yellow, or black fibrous glass blanket, board, or formed shapes, with or without facings.	<b>Odor:</b>	Mild formaldehyde
<b>Physical State:</b>	Solid	<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable	<b>Vapor Density:</b>	Not applicable
<b>Boiling Point:</b>	Not applicable	<b>Melting Point:</b>	>704°C/1300°F
<b>Solubility (H<sub>2</sub>O):</b>	Nil	<b>Specific Gravity:</b>	Variable
<b>VOC:</b>	Not determined		

**Section 10 - Stability & Reactivity Information****Stability**

These products are not reactive.

**Hazardous Decomposition**

May form carbon dioxide and carbon monoxide.

**Hazardous Polymerization**

Will not occur.

**Section 11 - Toxicological Information****Acute Toxicity****A: General Product Information**

If dust evolves from this product during use it may cause temporary mechanical irritation or scratchiness of the throat and/or itching of the eyes and skin.

Exposure to formaldehyde may cause eye and upper respiratory irritation, and possible respiratory or skin sensitization (allergy). If sensitization occurs, subsequent exposures to formaldehyde may worsen asthma or other respiratory problems, and cause allergic-type reactions.

**B: Component Analysis - LD50/LC50****Formaldehyde (50-00-0)**

Inhalation LC50 Rat: 0.578 mg/L/4H; Oral LD50 Rat: 500 mg/kg

**Carbon black, bound (present in black products only) (1333-86-4)**

Oral LD50 Rat: >15400 mg/kg; Dermal LD50 Rabbit: >3 g/kg

**Antimony trioxide (1309-64-4)**

Oral LD50 Rat: >34600 mg/kg

**Carcinogenicity****A: General Product Information**

Exposure to formaldehyde has been associated with the development of nasopharyngeal cancer in laboratory animals and humans. Formaldehyde has been classified as a known human carcinogen, Group 1, by the International Agency for Research on Cancer (IARC). The US National Toxicology Program (NTP) consider formaldehyde as known to be a human carcinogen. OSHA specifically regulates formaldehyde under 29 CFR 1910.1048.

**B: Component Carcinogenicity****Continuous Filament Glass Fiber**

ACGIH: A4 - Not Classifiable as a Human Carcinogen (listed under Synthetic Vitreous Fibers)

IARC: Group 3 - Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibres), Monograph 43 [1988])

**Fiber Glass Wool**

- ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed under Synthetic Vitreous Fibers)  
NTP: Reasonably Anticipated To Be A Human Carcinogen (respirable size)  
IARC: Group 3 - Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibres), Monograph 43 [1988])

**Formaldehyde (50-00-0)**

- ACGIH: A2 - Suspected Human Carcinogen  
OSHA: 0.5 ppm Action Level; 0.75 ppm TWA; 2 ppm STEL (Irritant and potential cancer hazard - see 29 CFR 1910.1048)  
NTP: Known to be a human carcinogen  
IARC: Group 1 - Known Human Carcinogen

**Carbon black, bound (present in black products only) (1333-86-4)**

- ACGIH: A4 - Not Classifiable as a Human Carcinogen  
IARC: Group 2B - Possibly Carcinogenic to Humans (IARC Monograph 93 [in preparation], Monograph 65 [1996])

**Antimony trioxide (1309-64-4)**

- ACGIH: A2 - Suspected Human Carcinogen (production)  
IARC: Group 2B - Possibly Carcinogenic to Humans (IARC Monograph 47 [1989])

**Chronic Toxicity**

Continuous Filament Glass Fiber: No chronic health effects are known to be associated with exposure to continuous filament fiber glass. Results from epidemiologic studies have not shown any increases in respiratory disease or cancer. The International Agency for Research on Cancer (IARC) has classified continuous filament fiber glass as a Group 3 substance, not classifiable as to its carcinogenicity to humans. Because of the large diameter of continuous filament fibers, these products are not considered respirable.

The U.S. Department of Health and Human Services, National Toxicology Program (NTP 1998, 2000, 2002) classified glass wool (respirable size) as reasonably anticipated to be a human carcinogen, based on sufficient evidence of carcinogenicity in animals. This assessment was originally prepared in 1993-1994 for the 7th Report on Carcinogens (NTP 1994), but has not been updated since then in the 8th, 9th, or 10th Reports on Carcinogens (NTP 1998, 2000, 2002).

Prolonged, excessive exposures to vapors may cause nervous system, kidney and liver damage.

**Section 12 - Ecological Information****Ecotoxicity****A: General Product Information**

No data available for this product.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity****Formaldehyde (50-00-0)**

96 Hr LC50 Pimephales promelas: 22.6-25.7 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 1510 µg/L [static]; 96 Hr LC50 Brachydanio rerio: 41 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 0.032-0.226 ml/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 100-136 mg/L [static]; 96 Hr LC50 Pimephales promelas: 23.2-29.7 mg/L [static]  
96 Hr EC50 water flea: 20 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L

**Carbon black, bound (present in black products only) (1333-86-4)**

24 Hr EC50 Daphnia magna: >5600 mg/L

**Antimony trioxide (1309-64-4)**

96 Hr LC50 Pimephales promelas: >80 mg/L [static]; 96 Hr LC50 Brachydanio rerio: >1000 mg/L [static]  
72 Hr EC50 Selenastrum capricornutum: 67 mg/L  
48 Hr EC50 Daphnia magna: >1000 mg/L

**Section 13 - Disposal Considerations****US EPA Waste Number & Descriptions****General Product Information**

This product is not expected to be a hazardous waste when it is disposed of according to the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Product characterization after use is recommended to ensure proper disposal under federal and/or state requirements.

**Disposal Instructions**

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

**Section 14 - Transport Information****International Transport Regulations**

These products are not classified as dangerous goods according to international transport regulations.

**Section 15 - Regulatory Information****US Federal Regulations****A: General Product Information**

SARA 311/312: This product is not classified as hazardous under SARA 311/312.

**B: Component Analysis**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

**Formaldehyde (50-00-0)**

SARA 302: 500 lb TPQ

SARA 313: 0.1 % de minimis concentration

CERCLA: 100 lb final RQ; 45.4 kg final RQ

**Antimony trioxide (1309-64-4)**

CERCLA: 1000 lb final RQ; 454 kg final RQ

**State Regulations****A: General Product Information**

The glass fibers in this product are not known to be regulated.

Other state regulations may apply. Check individual state requirements.

**B: Component Analysis - State**

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

Component	CAS #	CA	FL	MA	MN	NJ	PA
Formaldehyde	50-00-0	Yes	No	Yes	Yes	Yes	Yes
Carbon black, bound (present in black products only)	1333-86-4	Yes	No	Yes	Yes	Yes	Yes
Antimony trioxide	1309-64-4	Yes	No	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):  
WARNING! This product contains a chemical known to the state of California to cause cancer.

Component	CAS #
Fiber Glass Wool ('related to Fibrous glass)	Not Applicable
Formaldehyde	50-00-0
Antimony trioxide	1309-64-4

**TSCA Status**

This product and its components are listed on the TSCA 8(b) inventory.

None of the components listed in this product are listed on the TSCA Export Notification 12(b) list.

**International Regulations****A: General Product Information**

These products are considered articles under both U.S. and international product regulations and as such, these products do not require registration or notification on the various country-specific inventories.

**B: Component Analysis - WHMIS IDL**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Continuous Filament Glass Fiber	Not Applicable	1 % (related to Fibrous glass)
Fiber Glass Wool	Not Applicable	1 % (related to Fibrous glass)
Formaldehyde	50-00-0	0.1 %

**WHMIS Classification**

Controlled Product Classification: D2A

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations. This SDS contains all the information required by the Controlled Products Regulations.

<b>Section 16 - Other Information</b>
---------------------------------------

**Other Information**

Prepared for:  
Johns Manville  
Insulation Systems  
P. O. Box 5108  
Denver, CO USA 80217-5108  
Prepared by:  
Johns Manville Technical Center  
P.O. Box 625005  
Littleton, CO USA 80162-5005

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.

Date	MSDS #	Reason
04/28/04	1009-2.0106	Regulatory update. Minor edits.
05/20/04	1009-2.0107	Sect. 1 Removal of discontinued trade names: 824 CAN Spin-Glas®; 830 CAN Spin-Glas®; Acoustic Backing Board; BS 476, EcoTherm™ Industrial Pipe Insulation; Fabricated Duct Board; Permacote Spiracoustic™; Pipe and Tank Insulation; Rigid Round™ (faced); Spiracoustic™; SuperRound®.
08/05/04	1009-2.0108	Sect. 1 Label ID edit. Removal of discontinued trade name, Micro-Flex CTS.
03/22/05	1009-2.0108	Sect. 1 addition of Insul-SHIELD® Coated Black from MSDS 1010. Addition of Blended Blowing Wool. Edits to Sect. 2 for new additions.
10/03/05	1009-2.0110	Section 1, SuperVane was removed. Discontinued product.
11/17/05	1009-2.0111	Regulatory update. Minor edits in Sections 8, 11, and 15. Removed all revision notes prior to 2004. Revision notes are stored in database archives.
01/31/07	1009-2.0112	Addition of Micro-Lok HP to trade names. Updates made throughout SDS for current trade names listed on this SDS. Section 15 TSCA 12b edits. Removed DBDO. These products are articles under TSCA and DBDO does not need to be reported under TSCA 12b.
06/26/07	1009-2.0113	Addition of Micromat Rx to trade names. Minor edits throughout. Addition of WHMIS classification in section 15.
04/28/08	1009-2.0114	Updated SDS to GHS format.
03/16/09	1009-2.0115	Addition of 13/16" Micro-Aire® Duct Board to trade names.
11/23/09	1009-2.0116	Removed Zeston Hi-Lo Temp® Insulation Inserts from trade names.
09/07/2011	1009-2.02	Regulatory Update
09/08/2011	1009-2.03	Correction sect. 8 respiratory End of Sheet 1009



## Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

<b>Document group:</b>	16-1918-8	<b>Version number:</b>	1.02
<b>Issue Date:</b>	17/05/2015	<b>Supersedes date:</b>	17/05/2015

This safety data sheet (SDS) is provided as a courtesy in response to a customer request. This product is not regulated under, and a SDS is not required for this product by the SS586 Specification for Hazard communication for hazardous chemicals and dangerous goods because, when used as recommended or under ordinary conditions, it should not present a health and safety hazard. However, use or processing of the product not in accordance with the product's recommendations or not under ordinary conditions may affect the performance of the product and may present potential health and safety hazards.

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Fire Barrier Duct Wrap 15A, 3M™ Fire Barrier Duct Wrap 20A, 3M™ Fire Barrier Duct Wrap Collar 20A, 3M™ Fire Barrier Plenum Wrap 5A

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

##### Recommended use

Passive Fire Protection

#### 1.3. Supplier's details

**Address:** 3M Technologies (S) Pte Ltd, 1 Yishun Avenue 7, Singapore 768923  
**Telephone:** +65 6450 8888  
**Website:** [www.3m.com.sg](http://www.3m.com.sg)

#### 1.4. Emergency telephone number

+65 6849 3050

### SECTION 2: Hazard identification

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

This product is considered to be an article and is exempt from GHS classification

#### 2.2. Label elements

##### SIGNAL WORD

Not applicable.

##### Symbols

Not applicable.

##### Pictograms

**3M™ Fire Barrier Duct Wrap 15A, 3M™ Fire Barrier Duct Wrap 20A, 3M™ Fire Barrier Duct Wrap Collar 20A, 3M™ Fire Barrier Plenum Wrap 5A**

Not applicable.

**2.3. Other hazards**

None known.

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

This material is a mixture.

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>% by Wt</b>
Vitreous Silicate	65997-17-3	75 - 85
Continuous Filament Glass Fiber	65997-17-3	15 - 20
Aluminum Foil	7429-90-5	1 - 3

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**Inhalation**

No need for first aid is anticipated.

**Skin contact**

No need for first aid is anticipated.

**Eye contact**

No need for first aid is anticipated.

**If swallowed**

No need for first aid is anticipated.

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

See Section 11.1 Information on toxicological effects

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

Not applicable

**SECTION 5: Fire-fighting measures**

**5.1. Suitable extinguishing media**

Non-combustible. Use a fire fighting agent suitable for surrounding fire.

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

None inherent in this product.

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

No special protective actions for fire-fighters are anticipated.

**SECTION 6: Accidental release measures**

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

Not applicable.

**6.2. Environmental precautions**

Not applicable.

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

Not applicable.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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

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

Not applicable.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

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

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Not applicable.

#### 8.2.2. Personal protective equipment (PPE)

##### Eye/face protection

Eye protection not required.

##### Skin/hand protection

No chemical protective gloves are required.

##### Respiratory protection

Respiratory protection is not required.

## SECTION 9: Physical and chemical properties

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

Physical state	Solid.
Appearance/Odour	Grey-green, odorless material with a wool type appearance.
Odour threshold	<i>Not applicable.</i>
Melting point/Freezing point	<i>Not applicable.</i>
Flash point	<i>Not applicable.</i>
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	<i>Not applicable.</i>
Flammable Limits(UEL)	<i>Not applicable.</i>
Relative density	2.5 - 3.0 [Ref Std: WATER=1]
Water solubility	Negligible
Solubility- non-water	<i>Not applicable.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>



Autoignition temperature	<i>Not applicable.</i>
Decomposition temperature	<i>Not applicable.</i>
Volatile organic compounds (VOC)	0 % weight
Percent volatile	0 %
VOC less H <sub>2</sub> O & exempt solvents	0 g/l

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

### 10.4 Conditions to avoid

Not determined

### 10.5 Incompatible materials

Strong acids.

### 10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	Not specified.

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

## SECTION 11: Toxicological information

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

### 11.1 Information on Toxicological effects

#### Signs and Symptoms of Exposure

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

#### Inhalation

No health effects are expected.

#### Skin contact

No health effects are expected.

#### Eye contact

No health effects are expected.

<b>3M™ Fire Barrier Duct Wrap 15A, 3M™ Fire Barrier Duct Wrap 20A, 3M™ Fire Barrier Duct Wrap Collar 20A, 3M™ Fire Barrier Plenum Wrap 5A</b>
---

**Ingestion**

No health effects are expected.

**Additional information:**

This product, when used under reasonable conditions and in accordance with the 3M directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

**Toxicological Data**

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

**Acute Toxicity**

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

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Serious Eye Damage/Irritation**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Skin Sensitisation**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Respiratory Sensitisation**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Carcinogenicity**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Specific Target Organ Toxicity - repeated exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

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

<b>SECTION 12: Ecological information</b>
---

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

#### 12.1. Toxicity

**Acute aquatic hazard:**

Not acutely toxic to aquatic life by GHS criteria.

**Chronic aquatic hazard:**

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

No component test data available.

#### 12.2. Persistence and degradability

No test data available.

#### 12.3 : Bioaccumulative potential

No test data available.

#### 12.4. Mobility in soil

Please contact manufacturer for more details

#### 12.5 Other adverse effects

No information available.

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

See Section 11.1 Information on toxicological effects

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

### SECTION 14: Transport Information

#### International Regulations

UN No.: Not applicable

UN Proper shipping name: Not applicable

Transportation Class (IMO): Not applicable

Transportation Class (IATA): Not applicable

Packing Group: Not applicable

Marine pollutant: Not applicable

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**3M™ Fire Barrier Duct Wrap 15A, 3M™ Fire Barrier Duct Wrap 20A, 3M™ Fire Barrier Duct Wrap Collar 20A, 3M™ Fire Barrier Plenum Wrap 5A**

**Global inventory status**

Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA.

**SECTION 16: Other information**

**Revision information:**

Revision Changes:

Section 1: Initial issue message information was modified.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

**3M Singapore SDSs are available at [www.3m.com.sg](http://www.3m.com.sg)**

**Fire Resistant Mineral Wool Insulation**

Version 0.0

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**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Trade name : MinWool-1200® Industrial Board, MinWool-1200® Flexible Batt, MinWool-1200® Pipe, MinWool-1200® Pipe and Tank Wrap, MinWool® Sound Attenuation Fire Batt, MinWool® Safing, MinWool® Curtainwall, MinWool-1200® Field Formed Pipe Insulation, MinWool-1200® Preformed Pipe Insulation, MinWool-1200® Metal Mesh Blanket, MinWool-1200® Precision Cut Pipe Insulation, MinWool-1200® Mitered Fittings, MinWool® Deck Plug Fire Stop, MinWool-1200® Lamella Tank Wrap, MinWool® Marine Board

Manufacturer or supplier's details

Company : Johns Manville  
Address : P.O. Box 5108  
Denver, CO USA 80127  
Telephone : 303-978-2000 8:00AM-5:00PM M-F  
Emergency telephone : 1-800-424-9300 (Chemtrec, in English)  
number

Prepared by : productsafety@jm.com

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Not a hazardous substance or mixture.

**Other hazards**

Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product.

Trace amounts of formaldehyde may be released when contacted with moisture, including humidity. This release is most prevalent in conditions of high heat and humidity.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical nature**

Mineral wool product

**Hazardous components**

Non-hazardous according to 29 CFR 1910.1200, when used as intended.

**Relevant ingredients**

Chemical Name	CAS-No.	Concentration (%)
Mineral fibers	Not Assigned	>= 95 - <= 100 %
Cured urea extended phenol-formaldehyde resin	Not Assigned	>= 0 - <= 5 %

**SECTION 4. FIRST AID MEASURES**

General advice : Get medical attention if symptoms occur.

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- If inhaled : Move to fresh air.  
If symptoms persist, call a physician.
- In case of skin contact : If on skin, rinse well with water.  
Get medical attention if irritation develops and persists.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
If eye irritation persists, consult a specialist.
- If swallowed : If symptoms persist, call a physician.  
Rinse mouth with water to remove dust or fibers and drink plenty of water to help reduce irritation.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Avoid dust formation.
- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Keep in a dry, cool place.
- Materials to avoid : No materials to be especially mentioned.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

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Nuisance dust	Not Assigned	TWA (Total particulate)	15 mg/m3	OSHA
		TWA (Respirable fraction)	5 mg/m3	OSHA

As a member of NAIMA, JM subscribes to the NAIMA Product Stewardship Program (NPSP). Under the NPSP, JM recommends that exposures be limited to the voluntary concentration of 1 f/cc TWA. The NPSP also includes work practice and respiratory protection recommendations. For more information, see: <http://www.naima.org/insulation-knowledge-base/health-and-safety-aspects/product-stewardship-program-for-worker-protection.html>.

### Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.  
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hand protection  
Remarks : For prolonged or repeated contact use protective gloves.
- Eye protection : Safety glasses
- Skin and body protection : Long sleeved clothing
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : solid
- Colour : natural colour
- Odour : not significant
- Odour Threshold : No data available
- pH : Not applicable
- Melting point/range : > 2,000 °F  
: Not applicable
- Flash point : Not applicable
- Evaporation rate : Not applicable
- Flammability (solid, gas) : No data available
- Upper explosion limit : Not applicable
- Lower explosion limit : Not applicable
- Vapour pressure : Not applicable
- Relative vapour density : Not applicable

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Relative density	: No data available
Density	: Not applicable
Solubility(ies)	
Water solubility	: Not applicable
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: Not applicable
Viscosity	
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	: No data available

**SECTION 11. TOXICOLOGICAL INFORMATION**

<b>IARC</b>	Group 3: Not classifiable as to its carcinogenicity to humans  Mineral fibers
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>NTP</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Further information****Product:**

Remarks: Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product. Trace amounts of formaldehyde may be released when contacted with moisture, including humidity. This release is most



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prevalent in conditions of high heat and humidity.

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

Additional ecological information : Due to the properties of the product, a hazard to the environment may not be expected.

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Disposal of residual product : In accordance with local and national regulations.

---

**SECTION 14. TRANSPORT INFORMATION****International transport regulations**

These products are not classified as dangerous goods according to international transport regulations.

---

**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

**California Prop 65**

WARNING! This product contains a chemical known to the

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State of California to cause cancer.

**The components of this product are reported in the following inventories:**

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL.

**SECTION 16. OTHER INFORMATION****Further information**

Revision Date : 01/19/2015

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

## Safety Data Sheet

### Identification-Section 1

**Product Name:** SBS Self Adhering  
**Name:** Self Adhering Membranes Generic  
**Manufacturer:** MFM Building Products Corp.  
**Address:** P.O. Box 340 Coshocton, OH 43812

**CAS #:** None / Mixture  
**Formula:** Mixture  
**Telephone:** (740) 622-2645  
**Emergency Telephone:** Chemtrec 1-800-424-9300

Trade Names: Ice Buster II™, MFM SubSeal™, MFM Peel & Seal®, MFM Peel & Seal® 250, MFM Peel & Seal® 250 Power Bond™, MFM RidgeSeal™, MFM WindowWrap®, MFM WindowWrap® Power Bond™, MFM Window Flashing™, MFM DoubleBond™, MFM Wind and Water Seal™, MFM Seal and Coat™, MFM FlexClad-400™, MFM FlexClad-250™, MFM FutureFlash®, ShingleStarter™, MFM Peel & Patch™, STS Underlayment™, IB-3™, IB-3 Storm Stopper™, IB-4™, StormStopper FSU™, MFM Peel & Roof™, MFM Deck Wrap™, MFM Roof Deck Tape™, MFM WindowWrap® Flex, MFM WindowWrap® Flex Power Bond™, MFM WindowWrap® White, MFM EIFS Tape™, NX Seal™, IB-3 ShingleStarter™, MFM Butterfly Tape™, Ultra HT Wind & Water Seal™

### Section 2-Hazards Identification

#### Emergency Overview

**Appearance and Odor:** Black pliable solid, asphalt odor.

Under normal conditions of use, this product is not expected to create any unusual emergency hazards.

Skin irritation may be treated by washing affected area with soap and warm water.

In the event of fire, use normal fire fighting procedures to prevent inhalation of smoke and gases.

#### Potential Health Effects

**Summary:** Inhalation of dust or fumes from this product is unlikely to occur due to the product form and its intended use. Skin contact may result in mild irritation or allergic reaction following multiple exposures.

**Acute (short-term) Health Effects:** Skin contact may result in irritation.

**Chronic (long-term) Health Effects:** Prolonged skin contact may result in skin sensitization (allergy), with possible irritation, redness or rash.

**Target Organs:** Skin.

**Primary Routes of Entry:** Skin contact.

**Medical Conditions Which May Be Aggravated:** Pre-existing skin diseases.

#### Symptoms of Overexposure

**Inhalation:** Not applicable.

**Skin:** Temporary irritation or mild allergic type reactions may occur.

**Absorption:** Not applicable.

**Ingestion:** This product is not intended to be eaten under normal conditions of use. May cause severe irritation to the gastrointestinal tract if ingested.

**Eye:** Not applicable

---

**Section 3 – Composition / Information on Ingredients**

---

<b>Ingredient Name</b>	<b>CAS #</b>	<b>%</b>	<b>Exposure Limits</b>
Asphalt (see note)	8052-42-4	40-70	5 mg/m <sup>3</sup> TWA as fume (ACGIH)
Styrene-butadiene-styrene block copolymer	9003-55-8	5-20	Not Established
Mineral Oil (see note)	64741-88-4	0-8	5 mg/m <sup>3</sup> TWA as mist (ACGIH)
Calcium carbonate (see note)	1317-65-3	0-25	5 mg/m <sup>3</sup> TWA respirable fraction (OSHA)
Note: Due to product form, exposure to dusts and fumes is not expected to occur. Exposure limits are given for reference only.			

---

**Section 4- First -Aid Measures**

---

**Inhalation:** Not applicable.

**Skin:** Wash affected area with soap and warm water. Wash hands before eating, smoking or using the restroom. Do not eat or drink while working with this product. Avoid contact by wearing gloves.

**Absorption:** Not applicable.

**Ingestion:** This product is not intended to be eaten under normal conditions of use. Seek medical attention if ingested.

**Eye:** Not applicable

---

**Section 5- Fire - Fighting Measures**

---

**Flammable Properties:**

**Flash Point:** Not Determined

**Method:** Not Determined

**Flammable Limits:** Not Determined

**Flammable Classification:** Not Determined

**Explosive Limits:**

**LEL:** Not Determined

**UEL:** Not Determined

**Autoignition Temp:** Not Determined

**Flame Propagation:** Not Determined

**Unusual Fire/Explosion Hazards:**

There is no potential for fire or explosion.

---

## Section 6- Accidental Release Measures

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**Containment Procedures:** Pick up small pieces.

**Disposal:** Waste of this product is not defined as hazardous according to U.S. EPA (40 CFR 261.3). Comply with all local and state regulations when disposing of waste from this product.

---

## Section 7- Handling and Storage

---

Use protective equipment as described in Section 8 of this MSDS when handling uncontained material. Material should be kept dry and protected from the elements.

---

## Section 8- Exposure Controls/Personal Protection

---

**Summary:** Protective equipment should be provided as needed to prevent excessive skin contact. Wash hands and other exposed areas before eating, drinking, smoking or using the restroom.

**Eye:** Safety glasses.

**Skin:** Leather or cotton gloves.

**Respiratory:** Not required.

**Ventilation:** Not required.

---

## Section 9- Physical and Chemical Properties

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<b>Boiling Point:</b>	Not Determined
<b>Evaporation rate:</b>	Not Applicable
<b>Melting Point:</b>	Not Determined
<b>pH:</b>	Not Applicable
<b>Saturation in Air:</b>	Not Applicable
<b>Solids Content:</b>	Not Determined
<b>Specific Gravity:</b>	Not Determined
<b>Vapor Density:</b>	Not Applicable
<b>Viscosity:</b>	Not Applicable
<b>VOC's (g/l):</b>	0
<b>Water Solubility:</b>	Insoluble
<b>Appearance and Odor:</b>	Black pliable solid, rubber and petroleum odor.

---

## Section 10- Stability and Reactivity

---

**Product is stable. Hazardous polymerization will not occur.**

**Reactivity:** The product is not reactive.

**Hazardous Decomposition Products:** Carbon monoxide, various hydrocarbons, sulfur oxides.

---

### Section 11- Toxicological Information

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This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of individual ingredients. The hazards described in this document have been evaluated on a threshold of 1.0% for hazardous ingredients and 0.1% for all carcinogens.

**Acute Effects:** Skin contact may result in irritation and possible allergic reactions. The LD<sub>50</sub> and LC<sub>50</sub> for this product have not been determined.

**Chronic Effects:** Prolonged skin contact may result in skin sensitization with possible irritation, redness or allergic reaction. Due to product form, exposure to dusts, mists or fumes is not expected to occur.

---

### Section 12- Ecological Information

---

None available at this time.

---

### Section 13- Disposal Considerations

---

This product is not regulated by the U.S. EPA under Resource Conservation and Recovery Act (RCRA) regulations. Dispose of all waste in accordance with federal, state and local regulations.

---

### Section 14- Transport Information

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**U.S. Department of Transportation Shipping Classification:** Not classified as a hazardous material.

---

### Section 15- Regulatory Information

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**U.S. Federal Regulations:** This product has not been classified a carcinogen by the Occupational Safety and Health Administration (OSHA), the National Toxicology Program (NTP) or the International Agency for Research on Cancer (IARC).

All ingredients in this product are TSCA listed.

There are no chemicals in this product regulated by SARA 313, CERCLA or TSCA12(b).

**State Regulations:** None

**WHMIS Classifications:** This product is not WHMIS controlled. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR). This SDS contains all the information required by CPR.

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**Section 16 - Other Information, Including Date of Preparation or Last Revision**

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**SDS Revision Summary:**

10/28/96	Original Issue
01/10/97	Typo
07/10/97	Typo
03/12/98	New Area Code
10/10/98	Add Trade names of new products
09/20/99	Update due to ingredient changes
01/06/00	Update Trade names
02/09/00	Update ingredients
08/03/00	Update ingredients
03/31/05	Add Trade names of new products
12/08/05	Review ingredients
01/30/06	Add Trade name of new product
09/04/08	Product added
06/01/10	Products added and full review
07/31/12	Add WHMIS Classification
02/07/13	Add Trade name of new product
09/18/13	Products added
10/24/13	Updated headings to meet GHS
04/04/14	Added Registered Trade Mark to WindowWrap <sup>®</sup> and Emergency Telephone

At the date of preparation of the document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable Federal and state law. However, no warranty or representation with respect to such information is intended or given.

---

**SECTION 1 – IDENTIFICATION**

---

Product Name: FOAMGLAS<sup>®</sup> insulation, FOAMGLAS<sup>®</sup> ONE™ insulation, FOAMGLAS<sup>®</sup> HLB insulation

Manufacturer/Supplier:

Pittsburgh Corning Corporation

Global Industry Headquarters

800 Presque Isle Drive

Pittsburgh, PA 15239

Information Number: +1 724 327 6100

CHEMTREC: +1 800 424 9300

Generic Name: Cellular glass insulation

Use: Insulation of tanks, spheres, piping, roofs and equipment. For professional use only.

Chemical Family: Mixture

General

Comments: General information and emergency information available 8:00 AM – 5:00 PM Monday through Friday.

CHEMTREC telephone number is to be used only in the event of chemical transportation emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to technical service.

---

**SECTION 2 – HAZARD(S) IDENTIFICATION**

---

HAZARD CLASSIFICATION: Potential Irritant

SIGNAL WORD: **WARNING**

HAZARD STATEMENT: Dust in contact with skin will cause irritation.  
Direct contact of dust with eyes will cause eye irritation.



HAZARDOUS  
POLYMERIZATION: Will Not Occur

ROUTES OF EXPOSURE: Inhalation, Skin, Eyes and Ingestion.

IMMEDIATE EFFECTS:

INHALATION: No adverse effects are expected. May cause respiratory irritation.

SKIN CONTACT: Irritation or abrasion from glass particles.

EYE CONTACT: Contact can cause severe irritation, inflammation of the mucous membrane, tearing, and sensitivity to light.

INGESTION: May be harmful if ingested, although this is not a likely route of entry. Ingestion can cause possible abrasion of mouth and throat from glass particles.



**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:**

ACUTE:	Preexisting skin and eye disorders may be aggravated by direct contact to this product.
CHRONIC:	Prolonged or repeated overexposure to airborne glass dust can lead to inflammation and scarring of lung tissue.
CARCINOGENICITY:	There are no components in this product that are listed as a carcinogen by NTP, IARC, ACGIH or OSHA.

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	App. % by Vol.	CAS #
Glass Dust	Varies	NA

**SECTION 4 – FIRST AID MEASURES****GENERAL**

ADVICE:	Obtain special instructions before use. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible)
INHALATION:	Move the exposed person to fresh air at once, apply artificial respiration if needed. Call poison center, physician or emergency medical service if needed. Encourage victim to cough, spit out, and blow nose to remove dust. If breathing is difficult, GET MEDICAL ATTENTION.
SKIN CONTACT:	Wash thoroughly without pressure. If irritation persists or skin is broken, consult physician.
EYE CONTACT:	Flush with potable water for 15 minutes, do not rub or apply pressure. Consult physician or emergency medical service.
INGESTION:	An unlikely route of entry. Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Call a physician immediately

---

**SECTION 5 – FIRE FIGHTING MEASURES**

---

SUITABLE EXTINGUISHING MEDIA: Fine Water Spray, CO<sub>2</sub>, Dry Chemical, Foam. If entering a confined area, use self-contained breathing apparatus.

EXPLOSION DATA:

SENSITIVITY TO MECHANICAL IMPACT: NA  
SENSITIVITY TO STATIC DISCHARGE: NA

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None. This product is not flammable or combustible. Packaging is combustible.

HAZARDOUS COMBUSTION PRODUCTS:

None known.

SPECIAL FIRE FIGHTING MEASURES: Wear self-contained breathing apparatus and protective clothing.

---

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

---

PRECAUTIONS FOR PERSONNEL:

Do not get in eyes, on skin, or on clothing. Do not breathe dust. Avoid generating dust

Wear personal protective equipment. Refer to recommendations in section 8. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling and before eating or drinking.

ENVIRONMENTAL PRECAUTIONS:

Ensure adequate ventilation. Use dustless methods. All in accordance with local, state and federal government regulations.

PROCESS FOR CLEANING:

Collect in sift proof containers. Avoid generation of dust.

REGULATORY REQUIREMENTS:

Follow applicable OSHA regulations (29 CFR 1910.120).

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**SECTION 7 – HANDLING AND STORAGE**

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HANDLING: Avoid generation of dust. Wash hands before eating, drinking, smoking or using toilet. Keep out of reach of children.

STORAGE: If storing for long periods, protect product from weather.

**SECTION 8 – EXPOSURE RESTRICTIONS AND PERSONAL PROTECTION****EXPOSURE LIMITS**

<b>Ingredient</b>	<b>App. % by Vol.</b>	<b>TLV</b>	<b>NIOSH REL TWA</b>	<b>PEL</b>	<b>CAS #</b>
Glass Dust	Varies	10 mg/m <sup>3</sup>	UN	15 mg/m <sup>3</sup> 5 mg/m <sup>3a</sup> ( <sup>a</sup> respirable)	NA

**EXPOSURE GUIDELINES:**

When exposed to dust above recommended limits, wear a suitable NIOSH-approved respirator with a protection factor appropriate for the level of exposure. Seek guidance from a qualified industrial hygienist or safety professional, prior to respirator selection and use.

**ENGINEERING CONTROLS:**

When cutting, grinding, crushing, or drilling FOAMGLAS® insulation, provide general or local ventilation systems, as needed, to maintain airborne dust concentrations below the regulatory limits. Local vacuum collection is preferred since it prevents release of contaminants into the work area by controlling it at the source. Other technologies that may aid in controlling airborne respirable dust include wet suppression, ventilation, process enclosure, and enclosed employee work stations.

**PERSONAL PROTECTIVE EQUIPMENT:****EYE PROTECTION:**

When cutting, grinding, crushing, or drilling FOAMGLAS® insulation, wear safety glasses with side shields or dust goggles in dusty environments. Wear goggles for dust protection while cutting or abrading in wind or overhead work.

**SKIN PROTECTION:**

Wear rubber impregnated canvas gloves for abrasion protection. Wear normal protective work clothing with long sleeved shirt.

**RESPIRATORY  
PROTECTION:**

Use nuisance dust mask when cutting or abrading with adequate ventilation. Seek guidance from a qualified industrial hygienist or safety professional, prior to dust mask/respirator selection and use. (Supplied air or self-contained breathing apparatus in poorly ventilated areas may be required. Contact an Industrial Hygiene specialist to monitor work in confined spaces.)

**ENVIRONMENTAL EXPOSURE  
CONTROL:**

Use local exhaust when cutting. Use mechanical ventilation when crushing large volumes.

**WORK/HYGIENIC PRACTICES:**

Avoid contact with eyes and skin. Wash thoroughly after handling and before eating or drinking.

## SPECIAL PRECAUTIONS:

Respirable dust particles may be generated by crushing, cutting, grinding or drilling FOAMGLAS® insulation. Follow protective controls listed in the Exposure Guidelines above when handling these products.

**SECTION 9 – PHYSICAL PROPERTIES**

Appearance:	Black cellular solid	Flash Point : °C (°F) TCC	NA
Odor:	no odor unless cut or crushed, rotten egg odor when cells are crushed or cut	Ignition Temperature: °C (°F)	NA
Odor Threshold:	0.002 ppm	Evaporation Rate (BuAC=1)	NA
pH	NA	Flammability:	Non-Flammable
Melting Point/Freezing Point: °C (°F)	732 (1350)	Flammable Limits: LEL	NA
Boiling Point: °C (°F)	NA	UEL	NA
Solubility in Water:	Insoluble	Vapor Pressure: (MM Hg): pH:	NA
Partition Coefficient: n-octanol/water:	NA	Vapor Density: (Air = 1)	NA
Viscosity	NA	Specific Gravity: (H <sub>2</sub> O = 1):	0.11 – 0.22
VOC: g/l (lbs./gal)	0.0 (0.0)	Evaporation Rate: (BuAC=1)	NA
		Percent Volatile By Volume: (%)	NA

**SECTION 10 – STABILITY AND REACTIVITY**

## REACTIVITY:

Hazardous reactions will not occur under normal conditions.

## STABILITY:

Stable

## POSSIBILITY OF HAZARDOUS REACTIONS:

Hazardous reaction will not occur

## CONDITIONS TO AVOID:

NA

## MATERIALS TO AVOID:

NA

## DECOMPOSITION PRODUCTS:

None

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**SECTION 11 – TOXICOLOGICAL INFORMATION**


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CAS #	INGREDIENT	DERMAL LD50	INHALATION LD50	ORAL LD50
NA	Glass Dust	NE	NE	NE

CAS #	INGREDIENT	CARCINOGENICITY		TERATOGENICITY	MUTAGENICITY
		ACGIH	IARC		
NA	Glass Dust	NE	NE	NE	NE

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**SECTION 12 – ECOLOGICAL INFORMATION**


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BIODEGRADATION: NA  
 BIOACCUMULATION: NA  
 AQUATIC TOXICITY: NA  
 OTHER INFORMATION: None

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**SECTION 13 – DISPOSAL CONSIDERATIONS**


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DISPOSAL METHOD: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

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**SECTION 14 – TRANSPORT INFORMATION**


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SPECIAL SHIPPING INFORMATION: Not regulated  
 DOT SHIPPING CLASS: Not regulated.  
 TDG: Not regulated.  
 IATA: Not regulated

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**SECTION 15 – REGULATORY INFORMATION**

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**US Regulatory Information**

OSHA 29 CFR 1910-1200

TSCA

Irritant

All components of this product are listed on TSCA Inventory

SARA Title III:

SARA SECTION 302: None

SARA SECTION 304: NA

SARA (311,312) HAZARD CLASS: None

SARA (313) CHEMICALS: None

CERCLA:

RCRA:

CPSC CLASSIFICATION:

NA

Refer to section 13

NA

HMIS: FLAMMABILITY: 0 REACTIVITY: 0 HEALTH: 0

NFPA: FLAMMABILITY: 0 REACTIVITY: 0 HEALTH: 0

WHMIS CLASSIFICATION: Irritant

**CALIFORNIA PROPOSITION 65:**

- ☐ A. This product contains a chemical known to the State of CA to cause birth defects or other reproductive harm.
- ☐ B. This product contains a chemical known to the State of CA to cause cancer.
- ☐ C. This product contains a chemical known to the State of CA to cause cancer and birth defects or other reproductive harm.

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**SECTION 16 – OTHER INFORMATION**

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Prepared in accordance with 29 CFR 1910.1200

This Product has been classified in accordance with the hazard criteria of the Controlled Products

NA = not applicable

NE = not established

UN = unavailable

CL = Ceiling Limit

NEGL = Negligible

PROP. = Proprietary

"THE DATA INCLUDED HEREIN ARE PRESENTED IN ACCORDANCE WITH THE VARIOUS ENVIRONMENT, HEALTH AND SAFETY REGULATIONS. IT IS THE RESPONSIBILITY OF A RECIPIENT OF THIS DATA TO REMAIN CURRENTLY INFORMED ON CHEMICAL HAZARD INFORMATION, TO DESIGN AND UPDATE ITS INFORMED ON CHEMICAL HAZARD INFORMATION, TO DESIGN AND UPDATE ITS OWN PROGRAM AND TO COMPLY WITH ALL NATIONAL, FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS APPLICABLE TO SAFETY, OCCUPATIONAL HEALTH, RIGHT-TO-KNOW AND ENVIRONMENTAL PROTECTION."

WHILE THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN ARE BELIEVED TO BE ACCURATE, PITTSBURGH CORNING MAKES NO WARRANTY WITH RESPECT THERETO, AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

FOAMGLAS® is a registered trademark of Pittsburgh Corning.

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REVISION DATE: 12-19-2014

SUPERSEDES: 09-30-2014

**SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER****PRODUCT INFORMATION**

PRODUCT: FOSTER 30-35  
PRODUCT DESCRIPTION: Coating  
INTENDED USE: Coating  
PRODUCT IDENTIFIER: 802256PM

**COMPANY INFORMATION**

H.B. Fuller Construction Products Inc.  
1105 S. Frontenac Street  
Aurora, IL 60504  
Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION****GHS Hazard  
Symbols:****GHS Signal Word:  
GHS Classification:**

Danger  
Skin Sensitisation Category 1; Aspiration Hazard Category 1; Carcinogenicity Category 2; Flammable Liquid Category 3; Hazardous to the aquatic environment - Acute Category 3; Hazardous to the aquatic environment - Chronic Category 3

**GHS Hazard  
Phrases:**

Flammable liquid and vapour.; May be fatal if swallowed and enters airways.; May cause an allergic skin reaction.; Suspected of causing cancer.; Harmful to aquatic life.; Harmful to aquatic life with long lasting effects.

**GHS Precautions:  
Safety Precautions:**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Measures:**

IF SWALLOWED: Immediately call a POISON CENTER or doctor. IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/attention. Do NOT induce vomiting. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use water spray, foam, dry chemical or carbon dioxide to extinguish.

**Storage:**

Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

**Disposal:**

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

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regulation for hazardous wastes.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS #	PERCENT	Classification	Note
Stoddard solvent	8052-41-3	30 - 50	Asp. Tox. 1; H304	Note P
Titanium dioxide	13463-67-7	1 - 5	Carc. 2; H351	* (see below)
Zinc oxide	1314-13-2	1 - 5	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	
Wood rosin	8050-09-7	0.1 - 1	Skin Sens. 1; H317	
Antimony trioxide	1309-64-4	0.1 - 1	Aquatic Acute 1; H400 Carc. 2; H351	* (see below)
Tri(nonylphenol)phosphite	26523-78-4	0.1 - 1	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Skin Sens. 1; H317	
Naphthalene	91-20-3	0.1 - 1	Aquatic Chronic 1; H410 Acute Tox. 4; H302 Acute Tox. 2; H330 Carc. 2; H351	
Hindered amine light stabilizer	41556-26-7	0.1 - 1	Aquatic Acute 1; H400 Aquatic Acute 2; H401 Aquatic Chronic 2; H411 Skin Sens. 1; H317	

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

**SECTION 4: FIRST AID MEASURES**

IF IN EYES: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

IF ON SKIN: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

IF INHALED: Remove to fresh air. Call a physician if symptoms persist.

IF SWALLOWED: Do not induce vomiting. Seek medical attention immediately. Drink two glasses of water or milk to dilute. Do not give anything by mouth to an unconscious person. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

**SECTION 5: FIRE FIGHTING MEASURES**

EXTINGUISHING MEDIA:

Use water spray, foam, dry chemical or carbon dioxide.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Vapors are heavier than air and can travel to a source of ignition and flash back.

SPECIAL FIRE FIGHTING INSTRUCTIONS:

Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

HAZARDOUS COMBUSTION PRODUCTS:

Carbon dioxide, Carbon monoxide Chlorine containing gases  
Metal fumes



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### SECTION 6: ACCIDENTAL RELEASE MEASURES

**SPECIAL PROTECTION:** Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Evaporation of volatile substances can lead to the displacement of air creating an environment that can cause asphyxiation.

**METHODS FOR CLEAN-UP:** Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.  
 Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 7: HANDLING AND STORAGE

**Handling:** Avoid contacting and avoid breathing the material. Use only in a well ventilated area.  
 Keep away from heat, sparks and flame.  
 Wash thoroughly after handling.  
 Keep container closed.  
 Emptied container retains vapor and product residue.  
 Observe all labeled precautions until container is cleaned.  
 Drums of this material should be grounded when pouring.  
**DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.**

**Storage:** Store in a cool, dry, ventilated location. Keep away from heat and flame. Keep container closed.

Consult the Technical Data Sheet for specific storage instructions.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMITS:

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Stoddard solvent	Note P	100 ppm TWA	500 ppm TWA; 2900 mg/m <sup>3</sup> TWA
Talc	* (see below)	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	Not established
Titanium dioxide	* (see below)	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA (total dust)
Zinc oxide		2 mg/m <sup>3</sup> TWA (respirable fraction) 10 mg/m <sup>3</sup> STEL (respirable fraction)	5 mg/m <sup>3</sup> TWA (fume); 15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)
Calcium carbonate	* (see below)	No data available.	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)
Cumene		50 ppm TWA	50 ppm TWA; 245 mg/m <sup>3</sup> TWA Skin absorption may potentially contribute to

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			the overall exposure to this material.
Naphthalene		10 ppm TWA Skin absorption may potentially contribute to the overall exposure to this material.	10 ppm TWA; 50 mg/m3 TWA
Ethylbenzene		20 ppm TWA	100 ppm TWA; 435 mg/m3 TWA

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

### ENGINEERING CONTROL METHODS:

VENTILATION:	Use local exhaust ventilation or other engineering controls to minimize exposures.
EYE PROTECTION:	Wear safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Have an eye wash station available.
SKIN PROTECTION:	Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt. An apron may be appropriate if splashing can occur. Skin absorption may potentially contribute to the overall exposure to this material. Appropriate measures should be taken to prevent absorption so that the TLV is not invalidated.
GLOVES:	Nitrile
RESPIRATORY PROTECTION:	Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. NIOSH approved air purifying respirator with organic vapor cartridge. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	White
ODOR:	Mild Solvent
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	42C; 108F TCC
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	10.10
SPECIFIC GRAVITY:	1.170
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established

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VISCOSITY:	No data available.
SOLIDS (% by weight):	61.3
VOC, weight percent	Not determined
VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	450g/liter of material

**SECTION 10: STABILITY AND REACTIVITY**

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STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Strong oxidizing agents
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide Chlorine containing gases Metal fumes

**SECTION 11: TOXICOLOGICAL INFORMATION**

---

**Component Toxicity / Toxicology Data:**

COMPONENT NAME	LD50/LC50
Aluminum hydroxide	ORAL LD50 RAT > 5,000 MG/KG
Titanium dioxide	ORAL LD50 RAT > 10,000 MG/KG
Zinc oxide	ORAL LD50 RAT > 5,000 MG/KG
Calcium carbonate	ORAL LD50 RAT 6,450 MG/KG

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Serious eye damage / irritation :Can cause moderate irritation, tearing and reddening.

Respiratory / skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that is suspected of causing cancer.

Reproductive toxicity: No data available.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: May cause respiratory irritation.

Specific target organ toxicity-repeated exposure: No data available.

Target organs potentially affected by exposure: Kidneys Central nervous system Lungs Skin Blood Liver

Aspiration hazard: May be fatal if swallowed and enters airways.

Medical Conditions Aggravated by Exposure: Kidney disease, Lung disease, Skin disease including eczema and sensitization, Liver disease, Blood disorders (like anemia)

**SECTION 12: ECOLOGICAL INFORMATION**

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OVERVIEW:	No ecological information available for this product.
MOBILITY:	No data available.
PERSISTENCE:	No data available.

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BIOACCUMULATION: No data available.**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
Talc	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static] <b>Acute Toxicity (Daphnia):</b> Not established <b>Acute Toxicity (Algae):</b> Not established
Chlorinated paraffin	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Lepomis macrochirus: >300 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: >0.0109 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 94.5 - 271 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >0.1 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static] <b>Acute Toxicity (Daphnia):</b> Not established <b>Acute Toxicity (Algae):</b> Not established

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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This product meets the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. It is ignitable waste class D001. Disposal via incineration is recommended. Consult your state, local, or provincial authorities for more restrictive requirements.

LAND DISPOSAL RESTRICTIONS: Naphthalene ethylbenzene

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**SECTION 14: TRANSPORT INFORMATION**

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Consult Bill of Lading for transportation information.

US DOT: UN1139, COATING SOLUTION, 3, III

IATA: UN1139, COATING SOLUTION, 3, III

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**SECTION 15: REGULATORY INFORMATION**

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**INVENTORY STATUS**

U.S. EPA TSCA:	This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
CANADIAN CEPA DSL:	The components of this product are included on the DSL or are exempt from DSL requirements.
EUROPEAN REACH:	As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.
AUSTRALIA AICS:	This product is in compliance with the Australian Inventory of Chemical Substances requirements.
JAPAN ENCS:	This product is in compliance with the Japanese Existing and New Chemical Substances requirements.
KOREAN TCCL:	This product is in compliance with the Korean Existing Chemicals List requirements.
CHINA IECSC INVENTORY:	This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

**FEDERAL REPORTING**

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Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
Zinc compounds	1314-13-2	1 - 5
Cumene	98-82-8	0.1 - 1
Antimony compounds	1309-64-4	0.1 - 1
Naphthalene	91-20-3	0.1 - 1
ethylbenzene	100-41-4	0.1 - 1

**WHMIS STATUS:** Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

B3

D2B D2A D1A

**STATE REPORTING**

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Titanium dioxide (Carcinogen)	13463-67-7	1 - 5
Cumene (Carcinogen)	98-82-8	0.1 - 1
Antimony(III) oxide (Carcinogen)	1309-64-4	0.1 - 1
Naphthalene (Carcinogen)	91-20-3	0.1 - 1
ethylbenzene (Carcinogen)	100-41-4	0.1 - 1
Quartz (Carcinogen)	14808-60-7	0.01 - 0.1
Benzene (Carcinogen)	71-43-2	0.001 - 0.01
Lead compounds (Carcinogen)		0.001 - 0.01
Arsenic compounds (inorganic) (Carcinogen)		0.001 - 0.01
Lead (Carcinogen)	7439-92-1	0.001 - 0.01
Cadmium (Carcinogen)	7440-43-9	< 10 ppm
Benzene (Developmental toxin)	71-43-2	0.001 - 0.01
Lead (Developmental toxin)	7439-92-1	0.001 - 0.01
Cadmium (Developmental toxin)	7440-43-9	< 10 ppm
Toluene (Developmental toxin)	108-88-3	< 10 ppm
Lead (Female reproductive toxin)	7439-92-1	0.001 - 0.01
Benzene, methyl- (Female reproductive toxin)	108-88-3	< 10 ppm
Benzene (Male reproductive toxin)	71-43-2	0.001 - 0.01
Lead (Male reproductive toxin)	7439-92-1	0.001 - 0.01
Cadmium (Male reproductive toxin)	7440-43-9	< 10 ppm

**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's.

**SECTION 16: OTHER INFORMATION**

SDS VERSION DATE: 12-19-2014

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 2 FLAMMABILITY -- 2 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

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Prepared by: The Global Regulatory Department  
Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B.Fuller Construction Products, Inc. from its suppliers, and because H.B.Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B.Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B.Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B.Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

Print Date: 05-11-2015

 FOSTER 30-65  
 802261PM

## SAFETY DATA SHEET

REVISION DATE: 04-29-2015

SUPERSEDES: 04-23-2015

### SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER

#### PRODUCT INFORMATION

PRODUCT: FOSTER 30-65  
 PRODUCT DESCRIPTION: Coating  
 INTENDED USE: Coating  
 PRODUCT IDENTIFIER: 802261PM

#### COMPANY INFORMATION

H.B. Fuller Construction Products Inc.  
 1105 S. Frontenac Street  
 Aurora, IL 60504  
 Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
 Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 2: HAZARDS IDENTIFICATION

#### GHS Hazard Symbols:



**GHS Classification:** Hazardous to the aquatic environment - Acute Category 2; Hazardous to the aquatic environment - Chronic Category 2

**GHS Hazard Phrases:** May cause harm to breast-fed children.; Toxic to aquatic life.; Toxic to aquatic life with long lasting effects.

#### GHS Precautions:

**Safety Precautions:** Obtain special instructions before use. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.

**First Aid Measures:** IF exposed or concerned: Get medical advice/attention. Collect spillage.

**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	Classification	Note
C14-17, chlorinated paraffin	85535-85-9	5 - 10	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Acute Tox. 4; H302	
Titanium dioxide	13463-67-7	1 - 5	Carc. 2; H351	* (see below)
Attapulgate	12174-11-7	0.1 - 1	Carc. 2; H351	
Crystalline silica	14808-60-7	0.1 - 1	Carc. 1A; H350 STOT RE 1; H372	* (see below)

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\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

### SECTION 4: FIRST AID MEASURES

**IF IN EYES:** Use an eye wash to remove a chemical from your eye regardless of the level of hazard. Flush the affected eye for at least twenty minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Seek medical advice after flushing.

**IF ON SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists.

**IF INHALED:** Remove to fresh air. Call a physician if symptoms persist.

**IF SWALLOWED:** Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

### SECTION 5: FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water spray, foam, dry chemical or carbon dioxide.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.  
**SPECIAL FIRE FIGHTING INSTRUCTIONS:** Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.  
**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, Carbon monoxide Chlorine containing gases

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**SPECIAL PROTECTION:** No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.  
**METHODS FOR CLEAN-UP:** Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 7: HANDLING AND STORAGE

**Handling:** No special handling instructions due to toxicity.

**Storage:** Store in a cool, dry place. Protect from freezing  
Consult the Technical Data Sheet for specific storage instructions.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMITS:

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
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Kaolin clay	* (see below)	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Titanium dioxide	* (see below)	10 mg/m3 TWA	15 mg/m3 TWA (total dust)
Crystalline silica	* (see below)	0.025 mg/m3 TWA (respirable fraction)	((250)/(%SiO <sub>2</sub> + 5) mppcf TWA (respirable)); ((10)/(%SiO <sub>2</sub> + 2) mg/m3 TWA (respirable)); ((30)/(%SiO <sub>2</sub> + 2) mg/m3 TWA (total dust))

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

### ENGINEERING CONTROL METHODS:

**VENTILATION:** Use local exhaust ventilation or other engineering controls to minimize exposures.

**EYE PROTECTION:** Wear safety glasses when handling this product.

**SKIN PROTECTION:** Not normally required. Wear chemically resistant gloves to prevent prolonged or repeated contact.

**GLOVES:** Not normally required. Use nitrile gloves if conditions warrant.

**RESPIRATORY PROTECTION:** Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	White
ODOR:	Ammonia
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	Non flammable
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	11.10
SPECIFIC GRAVITY:	1.330
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	62.0
VOC, weight percent	1.35

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VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	38g/liter of material
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**SECTION 10: STABILITY AND REACTIVITY**

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STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide Chlorine containing gases

**SECTION 11: TOXICOLOGICAL INFORMATION**

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**Component Toxicity / Toxicology Data:**

COMPONENT NAME	LD50/LC50
Water	ORAL LD50 RAT > 90 ML/KG
Aluminum hydroxide	ORAL LD50 RAT > 5,000 MG/KG
C14-17, chlorinated paraffin	ORAL LD50 RAT 2,000 MG/KG
Titanium dioxide	ORAL LD50 RAT > 10,000 MG/KG

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: Can cause minor skin irritation, defatting, and dermatitis.

Serious eye damage / irritation :Can cause minor irritation, tearing and reddening.

Respiratory / skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that may cause cancer.

Reproductive toxicity: No data available.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-repeated exposure: No data available.

Target organs potentially affected by exposure: Kidneys Liver Lungs

Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Liver disease, Kidney disease, Lung disease

**SECTION 12: ECOLOGICAL INFORMATION**

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OVERVIEW:	No ecological information available for this product.
MOBILITY:	No data available.
PERSISTENCE:	No data available.
BIOACCUMULATION:	No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
No data available.	Acute Toxicity (Fish):

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	<b>Acute Toxicity (Daphnia):</b> <b>Acute Toxicity (Algae):</b>
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**SECTION 13: DISPOSAL CONSIDERATIONS**

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

**SECTION 14: TRANSPORT INFORMATION**

Consult Bill of Lading for transportation information.

US DOT:	NOT REGULATED
IATA:	NOT REGULATED
IMDG:	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (C14-C17 CHLORINATED PARAFFIN), 9, III, MARINE POLLUTANT

**SECTION 15: REGULATORY INFORMATION****INVENTORY STATUS**

U.S. EPA TSCA:	This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
CANADIAN CEPA DSL:	The components of this product are included on the DSL or are exempt from DSL requirements.
EUROPEAN REACH:	As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.
AUSTRALIA AICS:	This product is in compliance with the Australian Inventory of Chemical Substances requirements.
KOREAN TCCL:	This product is in compliance with the Korean Existing Chemicals List requirements.
PHILIPPINES:	This product is in compliance with the Philippine Inventory of Chemicals and Chemical Substances requirements.
CHINA IECSC INVENTORY:	This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

This product contains a chemical substance that is subject to a Significant New Use Rule (SNUR) under Section 5(a)(2) of TSCA:

.alpha.-(4-Nonylphenyl)-.omega.-hydroxy-poly(oxy-1,2-ethanediyl)  
.alpha.(Nonylphenyl)-.omega.-hydroxy-poly(oxy-1,2-ethanediyl)

79 FR 59186, Oct 1, 2014 (Proposed rule)

FEDERAL REPORTING  
EPA SARA Title III Section 313

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Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
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**STATE REPORTING**

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Titanium dioxide (Carcinogen)	13463-67-7	1 - 5
Quartz (Carcinogen)	14808-60-7	0.1 - 1
Cumene (Carcinogen)	98-82-8	0.01 - 0.1
Naphthalene (Carcinogen)	91-20-3	0.001 - 0.01
ethylbenzene (Carcinogen)	100-41-4	0.001 - 0.01
Ethyl acrylate (Carcinogen)	140-88-5	< 10 ppm
Lead (Carcinogen)	7439-92-1	< 10 ppm
Cadmium (Carcinogen)	7440-43-9	< 10 ppm
Benzene (Carcinogen)	71-43-2	< 10 ppm
Lead (Developmental toxin)	7439-92-1	< 10 ppm
Cadmium (Developmental toxin)	7440-43-9	< 10 ppm
Benzene (Developmental toxin)	71-43-2	< 10 ppm
Lead (Female reproductive toxin)	7439-92-1	< 10 ppm
Lead (Male reproductive toxin)	7439-92-1	< 10 ppm
Cadmium (Male reproductive toxin)	7440-43-9	< 10 ppm
Benzene (Male reproductive toxin)	71-43-2	< 10 ppm

**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's.

4-Nonylphenol, ethoxylated

4-Nonylphenol, ethoxylated

**SECTION 16: OTHER INFORMATION**

SDS VERSION DATE: 04-29-2015

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B.Fuller Construction Products, Inc. from its suppliers, and because H.B.Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B.Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B.Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is

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the responsibility of the user of H.B.Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

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REVISION DATE: 10-06-2014

SUPERSEDES: 08-17-2012

**SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER****PRODUCT INFORMATION**

PRODUCT: FOSTER 60-25  
PRODUCT DESCRIPTION: Mastic  
INTENDED USE: Adhesive  
PRODUCT IDENTIFIER: 802341PM

**COMPANY INFORMATION**

H.B. Fuller Construction Products Inc.  
1105 S. Frontenac Street  
Aurora, IL 60504  
Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION****GHS Hazard  
Symbols:****GHS Signal Word:  
GHS Classification:**

Danger  
Skin Sensitisation Category 1; Reproductive Toxicity Category 1B; Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 1; Flammable Liquid Category 3; Hazardous to the aquatic environment - Chronic Category 3

**GHS Hazard  
Phrases:**

Flammable liquid and vapour.; May cause an allergic skin reaction.; May damage fertility or the unborn child.; Causes damage to organs through prolonged or repeated exposure.; Harmful to aquatic life with long lasting effects.

**GHS Precautions:  
Safety Precautions:**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.

**First Aid Measures:**

IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use water spray, foam, dry chemical or carbon dioxide to extinguish.

**Storage:**

Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked

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**Disposal:** up.  
Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS #	PERCENT	Classification	Note
Aliphatic petroleum distillates	64742-88-7	10 - 30	STOT RE 1; H372	
Fuller's earth	8031-18-3	5 - 10	Aquatic Chronic 2; H411 Acute Tox. 4; H302	* (see below)
Aliphatic amine	28701-67-9	1 - 5	Aquatic Chronic 1; H410 Skin Sens. 1; H317	
Crystalline silica	14808-60-7	0.1 - 1	Carc. 1A; H350 STOT RE 1; H372	* (see below)
Boric acid	10043-35-3	0.1 - 1	Acute Tox. 2; H330 Repr. 1B; H360	

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

**SECTION 4: FIRST AID MEASURES**

**IF IN EYES:** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

**IF ON SKIN:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**IF INHALED:** Remove to fresh air. Call a physician if symptoms persist.

**IF SWALLOWED:** Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS.

**SECTION 5: FIRE FIGHTING MEASURES**

<b>EXTINGUISHING MEDIA:</b>	Use water spray, foam, dry chemical or carbon dioxide.
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	Vapors are heavier than air and can travel to a source of ignition and flash back.
<b>SPECIAL FIRE FIGHTING INSTRUCTIONS:</b>	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	Carbon dioxide, Carbon monoxide Sulfur containing gases Nitrogen containing gases

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**SPECIAL PROTECTION:** Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Evaporation of

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volatile substances can lead to the displacement of air creating an environment that can cause asphyxiation.

**METHODS FOR CLEAN-UP:** Scrape up and place in disposal container. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 7: HANDLING AND STORAGE

**Handling:** Avoid contacting and avoid breathing the material. Use only in a well ventilated area.  
 Keep away from heat, sparks and flame.  
 Wash thoroughly after handling.  
 Keep container closed.  
 Emptied container retains vapor and product residue.  
 Observe all labeled precautions until container is cleaned.  
 Drums of this material should be grounded when pouring.  
**DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.**

**Storage:** Store in a cool, dry, ventilated location. Keep away from heat and flame. Keep container closed.

Consult the Technical Data Sheet for specific storage instructions.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMITS:

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Asphalt (petroleum)		0.5 mg/m <sup>3</sup> TWA (fume, inhalable fraction, as benzene soluble aerosol)	Not established
Talc	* (see below)	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	Not established
Cellulose	* (see below)	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)
Crystalline silica	* (see below)	0.025 mg/m <sup>3</sup> TWA (respirable fraction)	((250)/(%SiO <sub>2</sub> + 5) mppcf TWA (respirable)); ((10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (respirable)); ((30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (total dust))
Boric acid		2 mg/m <sup>3</sup> TWA (inhalable fraction, listed under Borate compounds, inorganic) 6 mg/m <sup>3</sup> STEL (inhalable fraction, listed under Borate compounds, inorganic)	Not established

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

#### ENGINEERING CONTROL METHODS:

**VENTILATION:** Use local exhaust ventilation or other engineering controls to minimize exposures.



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EYE PROTECTION:	Wear safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Have an eye wash station available.
SKIN PROTECTION:	Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt. An apron may be appropriate if splashing can occur.
GLOVES:	Nitrile
RESPIRATORY PROTECTION:	Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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PHYSICAL STATE:	Semi-solid
COLOR:	Black
ODOR:	Solvent Mild
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	42C; 108F TCC
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	9.80
SPECIFIC GRAVITY:	1.180
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	79.0
VOC, weight percent	21.73
VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	256g/liter of material

**SECTION 10: STABILITY AND REACTIVITY**

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STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Sulfur containing gases Carbon monoxide, carbon dioxide Nitrogen containing gases

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### SECTION 11: TOXICOLOGICAL INFORMATION

#### Component Toxicity / Toxicology Data:

COMPONENT NAME	LD50/LC50
Asphalt (petroleum)	ORAL LD50 RAT > 5,000 MG/KG DERMAL LD50 RABBIT > 2,000.00 MG/KG
Aliphatic petroleum distillates	ORAL LD50 RAT > 5,000 MG/KG INHALATION LC50-4H RAT > 5 MG/L DERMAL LD50 RABBIT 3,000.00 MG/KG
Cellulose	INHALATION LC50-4H RAT > 5,800 MG/M3

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Serious eye damage / irritation :Can cause moderate irritation, tearing and reddening.

Respiratory / skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that may cause cancer.

Reproductive toxicity: Contains a substance that is a possible reproductive hazard based on animal studies.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-single exposure: Causes damage to organs through prolonged or repeated exposure.

Target organs potentially affected by exposure: Skin Lungs Central nervous system Reproductive system

Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Skin disease including eczema and sensitization, Lung disease

### SECTION 12: ECOLOGICAL INFORMATION

OVERVIEW:	No ecological information available for this product.
MOBILITY:	No data available.
PERSISTENCE:	No data available.
BIOACCUMULATION:	No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
Talc	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static] <b>Acute Toxicity (Daphnia):</b> Not established <b>Acute Toxicity (Algae):</b> Not established
Aliphatic petroleum distillates	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Pimephales promelas: 800 mg/L [static] <b>Acute Toxicity (Daphnia):</b> 48 Hr EC50 Daphnia magna: >100 mg/L <b>Acute Toxicity (Algae):</b> 96 Hr EC50 Pseudokirchneriella subcapitata: 450 mg/L

### SECTION 13: DISPOSAL CONSIDERATIONS

This product meets the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. It is ignitable waste class D001. Disposal via incineration is recommended. Consult your state, local, or provincial authorities for more restrictive requirements.

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FOSTER 60-25  
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Consult Bill of Lading for transportation information.

US DOT: NOT REGULATED  
IATA: NOT REGULATED**SECTION 15: REGULATORY INFORMATION****INVENTORY STATUS**

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

CANADIAN CEPA DSL: The components of this product are included on the DSL or are exempt from DSL requirements.

EUROPEAN REACH: As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.

AUSTRALIA AICS: This product is in compliance with the Australian Inventory of Chemical Substances requirements.

KOREAN TCCL: This product is in compliance with the Korean Existing Chemicals List requirements.

PHILIPPINES: This product is in compliance with the Philippine Inventory of Chemicals and Chemical Substances requirements.

CHINA IECSC INVENTORY: This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

**FEDERAL REPORTING****EPA SARA Title III Section 313**

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
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WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

B3

D2A D2B

**STATE REPORTING**

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Quartz (Carcinogen)	14808-60-7	0.1 - 1
ISOBUTYL METHYL KETONE (Carcinogen)	108-10-1	0.001 - 0.01
Methanol (Developmental toxin)	67-56-1	0.01 - 0.1
Methyl isobutyl ketone (Developmental toxin)	108-10-1	0.001 - 0.01

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**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's.

Boric acid

**SECTION 16: OTHER INFORMATION**

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SDS VERSION DATE: 10-06-2014

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 2 FLAMMABILITY -- 2 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B.Fuller Construction Products, Inc. from its suppliers, and because H.B.Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B.Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B.Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B.Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

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REVISION DATE: 10-06-2014

SUPERSEDES: 08-17-2012

**SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER****PRODUCT INFORMATION**

PRODUCT: FOSTER 60-26  
PRODUCT DESCRIPTION: Mastic  
INTENDED USE: Adhesive  
PRODUCT IDENTIFIER: 802343PM

**COMPANY INFORMATION**

H.B. Fuller Construction Products Inc.  
1105 S. Frontenac Street  
Aurora, IL 60504  
Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS Hazard  
Symbols:**



**GHS Signal Word:  
GHS Classification:**

Danger  
Skin Sensitisation Category 1; Reproductive Toxicity Category 1B; Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 1; Flammable Liquid Category 3; Hazardous to the aquatic environment - Chronic Category 3

**GHS Hazard  
Phrases:**

Flammable liquid and vapour.; May cause an allergic skin reaction.; May damage fertility or the unborn child.; Causes damage to organs through prolonged or repeated exposure.; Harmful to aquatic life with long lasting effects.

**GHS Precautions:  
Safety Precautions:**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.

**First Aid Measures:**

IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use water spray, foam, dry chemical or carbon dioxide to extinguish.

**Storage:**

Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked

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**Disposal:** up.  
Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS #	PERCENT	Classification	Note
Aliphatic petroleum distillates	64742-88-7	10 - 30	STOT RE 1; H372	
Fuller's earth	8031-18-3	5 - 10	Aquatic Chronic 2; H411 Acute Tox. 4; H302	* (see below)
Aliphatic amine	28701-67-9	1 - 5	Aquatic Chronic 1; H410 Skin Sens. 1; H317	
Crystalline silica	14808-60-7	0.1 - 1	Carc. 1A; H350 STOT RE 1; H372	* (see below)
Boric acid	10043-35-3	0.1 - 1	Acute Tox. 2; H330 Repr. 1B; H360	

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

**SECTION 4: FIRST AID MEASURES**

IF IN EYES: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

IF ON SKIN: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

IF INHALED: Remove to fresh air. Call a physician if symptoms persist.

IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS.

**SECTION 5: FIRE FIGHTING MEASURES**

EXTINGUISHING MEDIA:	Use water spray, foam, dry chemical or carbon dioxide.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Vapors are heavier than air and can travel to a source of ignition and flash back.
SPECIAL FIRE FIGHTING INSTRUCTIONS:	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
HAZARDOUS COMBUSTION PRODUCTS:	Carbon dioxide, Carbon monoxide Sulfur containing gases Nitrogen containing gases

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**SPECIAL PROTECTION:** Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Evaporation of

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volatile substances can lead to the displacement of air creating an environment that can cause asphyxiation.

**METHODS FOR CLEAN-UP:** Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 7: HANDLING AND STORAGE

**Handling:** Avoid contacting and avoid breathing the material. Use only in a well ventilated area.

Keep away from heat, sparks and flame.

Wash thoroughly after handling.

Keep container closed.

Emptied container retains vapor and product residue.

Observe all labeled precautions until container is cleaned.

Drums of this material should be grounded when pouring.

**DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.**

**Storage:** Store in a cool, dry, ventilated location. Keep away from heat and flame. Keep container closed.

Consult the Technical Data Sheet for specific storage instructions.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMITS:

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Asphalt (petroleum)		0.5 mg/m <sup>3</sup> TWA (fume, inhalable fraction, as benzene soluble aerosol)	Not established
Talc	* (see below)	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	Not established
Cellulose	* (see below)	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)
Crystalline silica	* (see below)	0.025 mg/m <sup>3</sup> TWA (respirable fraction)	((250)/(%SiO <sub>2</sub> + 5) mppcf TWA (respirable)); ((10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (respirable)); ((30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA (total dust))
Boric acid		2 mg/m <sup>3</sup> TWA (inhalable fraction, listed under Borate compounds, inorganic) 6 mg/m <sup>3</sup> STEL (inhalable fraction, listed under Borate compounds, inorganic)	Not established

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

#### ENGINEERING CONTROL METHODS:

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VENTILATION:	Use local exhaust ventilation or other engineering controls to minimize exposures.
EYE PROTECTION:	Wear safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Have an eye wash station available.
SKIN PROTECTION:	Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt. An apron may be appropriate if splashing can occur.
GLOVES:	Nitrile
RESPIRATORY PROTECTION:	Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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PHYSICAL STATE:	Semi-solid
COLOR:	Black
ODOR:	Mild Solvent
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	41C; 106F TCC
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	9.70
SPECIFIC GRAVITY:	1.150
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	78.0
VOC, weight percent	22.81
VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	262g/liter of material

**SECTION 10: STABILITY AND REACTIVITY**

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STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Sulfur containing gases Carbon monoxide, carbon dioxide Nitrogen containing gases



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### SECTION 11: TOXICOLOGICAL INFORMATION

**Component Toxicity / Toxicology Data:**

COMPONENT NAME	LD50/LC50
Asphalt (petroleum)	ORAL LD50 RAT > 5,000 MG/KG DERMAL LD50 RABBIT > 2,000.00 MG/KG
Aliphatic petroleum distillates	ORAL LD50 RAT > 5,000 MG/KG INHALATION LC50-4H RAT > 5 MG/L DERMAL LD50 RABBIT 3,000.00 MG/KG
Cellulose	INHALATION LC50-4H RAT > 5,800 MG/M3

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Serious eye damage / irritation :Can cause moderate irritation, tearing and reddening.

Respiratory / skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that may cause cancer.

Reproductive toxicity: Contains a substance that is a possible reproductive hazard based on animal studies.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-single exposure: Causes damage to organs through prolonged or repeated exposure.

Target organs potentially affected by exposure: Skin Central nervous system Lungs Reproductive system

Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Skin disease including eczema and sensitization, Lung disease

### SECTION 12: ECOLOGICAL INFORMATION

OVERVIEW:	No ecological information available for this product.
MOBILITY:	No data available.
PERSISTENCE:	No data available.
BIOACCUMULATION:	No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
Aliphatic petroleum distillates	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Pimephales promelas: 800 mg/L [static] <b>Acute Toxicity (Daphnia):</b> 48 Hr EC50 Daphnia magna: >100 mg/L <b>Acute Toxicity (Algae):</b> 96 Hr EC50 Pseudokirchneriella subcapitata: 450 mg/L
Talc	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static] <b>Acute Toxicity (Daphnia):</b> Not established <b>Acute Toxicity (Algae):</b> Not established

### SECTION 13: DISPOSAL CONSIDERATIONS

This product meets the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. It is ignitable waste class D001. Disposal via incineration is recommended. Consult your state, local, or provincial authorities for more restrictive requirements.

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FOSTER 60-26  
802343PM**SAFETY DATA SHEET****SECTION 14: TRANSPORT INFORMATION**

Consult Bill of Lading for transportation information.

US DOT: NOT REGULATED  
IATA: NOT REGULATED**SECTION 15: REGULATORY INFORMATION****INVENTORY STATUS**

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

CANADIAN CEPA DSL: The components of this product are included on the DSL or are exempt from DSL requirements.

EUROPEAN REACH: As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.

AUSTRALIA AICS: This product is in compliance with the Australian Inventory of Chemical Substances requirements.

KOREAN TCCL: This product is in compliance with the Korean Existing Chemicals List requirements.

PHILIPPINES: This product is in compliance with the Philippine Inventory of Chemicals and Chemical Substances requirements.

CHINA IECSC INVENTORY: This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

**FEDERAL REPORTING****EPA SARA Title III Section 313**

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
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WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

B3

D2A D2B

**STATE REPORTING**

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Quartz (Carcinogen)	14808-60-7	0.1 - 1
ISOBUTYL METHYL KETONE (Carcinogen)	108-10-1	0.001 - 0.01
Methanol (Developmental toxin)	67-56-1	0.01 - 0.1
Methyl isobutyl ketone (Developmental toxin)	108-10-1	0.001 - 0.01

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**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's.

Boric acid

**SECTION 16: OTHER INFORMATION**

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SDS VERSION DATE: 10-06-2014

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 2 FLAMMABILITY -- 2 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B.Fuller Construction Products, Inc. from its suppliers, and because H.B.Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B.Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B.Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B.Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

Print Date: 04-08-2015

FOSTER 90-07  
838261PM**SAFETY DATA SHEET**

REVISION DATE: 10-13-2014

SUPERSEDES: 10-09-2014

**SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER****PRODUCT INFORMATION**

PRODUCT: FOSTER 90-07  
PRODUCT DESCRIPTION: Coating  
INTENDED USE: Coating  
PRODUCT IDENTIFIER: 838261PM

**COMPANY INFORMATION**

H.B. Fuller Construction Products Inc.  
1105 S. Frontenac Street  
Aurora, IL 60504  
Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS Classification:** This product is not classified as hazardous under GHS criteria.  
**GHS Precautions:**  
**First Aid Measures:** IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. IF IN EYES: Use an eye wash to remove chemical from the eye. IF ON SKIN: Wash with soap and water. IF INHALED: Remove individual to fresh air after an airborne exposure if any symptoms develop.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS #	PERCENT	Classification	Note
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Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

**SECTION 4: FIRST AID MEASURES**

IF IN EYES: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

IF ON SKIN: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

IF INHALED: Remove to fresh air. Call a physician if symptoms persist.

IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

**SECTION 5: FIRE FIGHTING MEASURES**

EXTINGUISHING MEDIA: Use water spray, foam, dry chemical or carbon dioxide.

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**UNUSUAL FIRE AND EXPLOSION HAZARDS:** There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.  
**SPECIAL FIRE FIGHTING INSTRUCTIONS:** Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.  
**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, Carbon monoxide Sulfur containing gases

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**SPECIAL PROTECTION:** Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred.  
**METHODS FOR CLEAN-UP:** Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 7: HANDLING AND STORAGE

**Handling:** Avoid contacting and avoid breathing the material. Use only in a well ventilated area.

**Storage:** Store in a cool, dry place.  
 Consult the Technical Data Sheet for specific storage instructions.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### EXPOSURE LIMITS:

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
Asphalt (petroleum)		0.5 mg/m <sup>3</sup> TWA (fume, inhalable fraction, as benzene soluble aerosol)	Not established
Cellulose	* (see below)	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)

#### ENGINEERING CONTROL METHODS:

**VENTILATION:** Use local exhaust ventilation or other engineering controls to minimize exposures.  
**EYE PROTECTION:** Wear safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Have an eye wash station available.  
**SKIN PROTECTION:** Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt. An apron may be appropriate if splashing can occur.  
**GLOVES:** Nitrile  
**RESPIRATORY PROTECTION:** Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is

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not available or sufficient to eliminate symptoms.  
Respirators should be selected by and used following requirements  
found in OSHA's respirator standard (29 CFR 1910.134).

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE:	Liquid
COLOR:	Black
ODOR:	Neutral
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	Non flammable
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	8.70
SPECIFIC GRAVITY:	1.040
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	52.0
VOC, weight percent	0.00
VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	0g/liter of material

**SECTION 10: STABILITY AND REACTIVITY**

STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Sulfur containing gases Carbon monoxide, carbon dioxide

**SECTION 11: TOXICOLOGICAL INFORMATION****Component Toxicity / Toxicology Data:**

COMPONENT NAME	LD50/LC50
Asphalt (petroleum)	ORAL LD50 RAT > 5,000 MG/KG DERMAL LD50 RABBIT > 2,000.00 MG/KG
Cellulose	INHALATION LC50-4H RAT > 5,800 MG/M3
Clay	ORAL LD50 RAT > 5,000 MG/KG

**This product is a mixture. Unless noted, the information below is based on components.**

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Skin corrosion / irritation: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Serious eye damage / irritation :Can cause moderate irritation, tearing and reddening.

Respiratory / skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that is suspected of causing cancer.

Reproductive toxicity: No data available.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-single exposure: No data available.

Target organs potentially affected by exposure: Skin

Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Skin disease including eczema and sensitization

**SECTION 12: ECOLOGICAL INFORMATION**

OVERVIEW: No ecological information available for this product.  
MOBILITY: No data available.  
PERSISTENCE: No data available.  
BIOACCUMULATION: No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
Clay	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Salmo gairdneri: 8.0 - 19.0 g/L; 96 Hr LC50 Oncorhynchus mykiss: 19000 mg/L [static] <b>Acute Toxicity (Daphnia):</b> Not established <b>Acute Toxicity (Algae):</b> Not established

**SECTION 13: DISPOSAL CONSIDERATIONS**

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

**SECTION 14: TRANSPORT INFORMATION**

Consult Bill of Lading for transportation information.

US DOT: NOT REGULATED IF LESS THAN 10,000 POUNDS IN SINGLE CONTAINER. IF 10,000 POUNDS OR MORE IN SINGLE CONTAINER: "RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (POTASSIUM DICHROMATE), 9, UN3082, III"

**SECTION 15: REGULATORY INFORMATION****INVENTORY STATUS**

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

CANADIAN CEPA DSL: The components of this product are included on the DSL or are exempt

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EUROPEAN REACH:	from DSL requirements. As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.
AUSTRALIA AICS:	This product is in compliance with the Australian Inventory of Chemical Substances requirements.
KOREAN TCCL:	This product is in compliance with the Korean Existing Chemicals List requirements.
PHILIPPINES:	This product is in compliance with the Philippine Inventory of Chemicals and Chemical Substances requirements.
CHINA IECSC INVENTORY:	This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

**FEDERAL REPORTING****EPA SARA Title III Section 313**

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
---------------	------	---

WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

D2A D2B

**STATE REPORTING**

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
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**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's.

**SECTION 16: OTHER INFORMATION**

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SDS VERSION DATE: 10-13-2014

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 2 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department



Print Date: 04-08-2015

FOSTER 90-07  
838261PM**SAFETY DATA SHEET**

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Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B.Fuller Construction Products, Inc. from its suppliers, and because H.B.Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B.Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B.Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B.Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.



## Article Information Sheet

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This Article Information Sheet is provided as a courtesy in response to a customer request. A Safety Data Sheet (SDS) has not been prepared for these product(s) because they are articles. Articles are not subject to the Occupational Safety and Health Administration's Hazard Communication Standard (29 CFR 1910.1200(b)(6)(v)). As defined in this standard: "Article" means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical, and does not pose a physical or health risk to employees.

**Document Group:** 29-4717-4  
**Issue Date:** 12/11/14

**Version Number:** 2.00  
**Supersedes Date:** Initial Issue

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ High Temperature Aluminum Foil/Glass Cloth Tape 363, 3M™ Aluminum Foil/Reinforced Tape 1430, and 3M™ FSK Facing Tape 3320

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

##### Recommended use

Sealing and Protection, Industrial use

#### 1.3. Supplier's details

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

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazard identification

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

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Cloth/Aluminum Foil Backing	None	51 - 99
Adhesive	Trade Secret*	1 - 49

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

No need for first aid is anticipated.

**Skin Contact:**

No need for first aid is anticipated.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

No need for first aid is anticipated.

## SECTION 5: Fire-fighting measures

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

## SECTION 6: Accidental release measures

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

Not applicable.

### 6.2. Environmental precautions

Not applicable.

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

Not applicable.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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

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

No special storage requirements.

## SECTION 8: Exposure controls/personal protection

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

## SECTION 9: Physical and chemical properties

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

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

## SECTION 10: Stability and reactivity

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

## SECTION 11: Toxicological information

### Inhalation:

No health effects are expected

### Skin Contact:

No health effects are expected

### Eye Contact:

No health effects are expected

### Ingestion:

No health effects are expected

### Additional Information:

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

## SECTION 12: Ecological information

This article is expected to present a low environmental risk either because use and disposal are unlikely to result in a significant release of components to the environment or because those components that may be released are expected to have

insignificant environmental impact.

## SECTION 13: Disposal considerations

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

## SECTION 14: Transport Information

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

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

## SECTION 15: Regulatory information

### Chemical Inventories

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

For additional regulatory information on this product, refer to [www.3M.com/regs](http://www.3M.com/regs).

## SECTION 16: Other information

### NFPA Hazard Classification

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

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

**Document Group:** 29-4717-4  
**Issue Date:** 12/11/14

**Version Number:** 2.00  
**Supersedes Date:** Initial Issue

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# SAFETY DATA SHEET

## Goof Off Heavy Duty 3% VOC

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Printed: 04/16/2015

Revision: 04/16/2015

Supersedes Revision: 04/14/2015

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name:</b>	Goof Off Heavy Duty 3% VOC	
<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>	Mult-Purpose Remover for tar, ink, paint, adhesive, etc.	
<b>Synonyms:</b>	FG659, FG659B, FG659BWS, FG701, FG701CS, FG708, FG720, FG748, FG748C, FG659W, FG659BLWS, FG659MT, FG659S, FG732, FG780, FG659BW, FG722	
<b>Additional Information</b>	This product is regulated by the United States Consumer Product Safety Commission and is subject to certain labeling requirements under the Federal Hazardous Substances Act. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS). The product label also includes other important information, including directions for use, and should always be read in its entirety prior to using the product.	

### 2. HAZARDS IDENTIFICATION

**Skin Corrosion/Irritation, Category 2****Serious Eye Damage/Eye Irritation, Category 2****Specific Target Organ Toxicity (single exposure), Category 3**

<b>GHS Signal Word:</b>	<b>Warning</b>
<b>GHS Hazard Phrases:</b>	H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.
<b>GHS Precaution Phrases:</b>	P261: Avoid breathing gas/mist/vapors/spray. P264: Wash hands thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P280: Wear protective gloves/protective clothing/eye protection/face protection.
<b>GHS Response Phrases:</b>	P302+352: IF ON SKIN: Wash with plenty of soap and water. P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P321: Specific treatment see label. P332+313: If skin irritation occurs, get medical advice/attention. P337+313: If eye irritation persists, get medical advice/attention. P362: Take off contaminated clothing and wash before re-use.
<b>GHS Storage and Disposal Phrases:</b>	P403+233: Store container tightly closed in well-ventilated place. P405: Store locked up. P501: Dispose of contents/container according to local, state and federal regulations.

# SAFETY DATA SHEET

## Goof Off Heavy Duty 3% VOC

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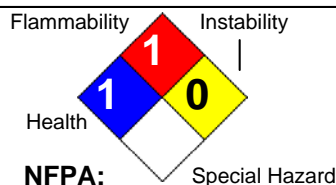
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**Hazard Rating System:**

HEALTH	*	2
FLAMMABILITY	1	
PHYSICAL	0	
PPE	X	

**HMIS:****OSHA Regulatory Status:**

This material is classified as hazardous under OSHA regulations.

**Potential Health Effects  
(Acute and Chronic):**

This material has not been tested as a whole for health effects. Effects listed are those of the individually listed ingredients in this msds.

**Eyes:**

May cause severe irritation. May cause moderate corneal injury. Effects may include discomfort or pain, and redness. Effects may be slow to heal.

**Skin:**

Brief contact may cause slight skin irritation with local redness. Repeated exposure may cause irritation, even a burn. May cause more severe response on covered skin (under clothing, gloves).

**Inhalation:**

When used as directed, the consumer is not expected to experience any exposure effects. Excessive exposure may cause irritation to the upper respiratory tract. Symptoms may include a headache, dizziness, or nausea.

**Ingestion:**

Moderately toxic 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.

**Target Organs:** Blood (Hemolysis), Kidneys, Liver, Eyes, Skin, Central Nervous System.

**Primary Routes of Entry:** Eyes, Skin, Inhalation, Ingestion

**Medical Conditions Generally** None known.

**Aggravated By Exposure:**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration	RTECS #
100-51-6	Benzenemethanol {Benzyl alcohol}	5.0 -10.0 %	DN3150000
143-18-0	Oleic acid potassium salt	5.0 -10.0 %	RK1150000
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)}	1.0 -5.0 %	KJ8575000
112-34-5	Diethylene glycol monobutyl ether {2-(2-Butoxyethoxy)ethanol {(a glycol ether)}	1.0 -5.0 %	KJ9100000
770-35-4	Propylene glycol phenyl ether {(not 313)}	1.0 -5.0 %	UB8886500

**Additional Chemical  
Information**

Specific percentage of composition is being withheld as a trade secret.



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**Goof Off Heavy Duty 3% VOC**

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## 4. FIRST AID MEASURES

**Emergency and First Aid Procedures:**

**Skin:**

Remove contaminated clothing. Immediately wash skin thoroughly with large amounts of water and mild soap, if available. Seek medical attention if irritation develops or persists.

**Eyes:**

Immediately begin to flush eyes with water, remove any contact lens. Continue to flush the eyes for at least 15 minutes. Seek medical attention.

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

**Ingestion:**

If swallowed, do NOT induce vomiting. Seek immediate medical attention. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

**Signs and Symptoms Of Exposure:**

See Potential Health Effects.

## 5. FIRE FIGHTING MEASURES

	Not flammable or combustible
<b>Flash Pt:</b>	> 212.00 F    Method Used: Setaflash Closed Cup (Rapid Setaflash)
<b>Explosive Limits:</b>	LEL: none                      UEL: none
<b>Autoignition Pt:</b>	NP
<b>Suitable Extinguishing Media:</b>	Non-combustible liquid - use extinguishing media for underlying cause of fire.
<b>Unsuitable Extinguishing Media:</b>	None known.
<b>Fire Fighting Instructions:</b>	Material is not flammable or combustible. No special fire fighting instructions required.
<b>Flammable Properties and Hazards:</b>	None
<b>Additional Fire Fighting Information</b>	NP = Not applicable

## 6. ACCIDENTAL RELEASE MEASURES

<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Prevent entry into waterways, sewers, or confined areas. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to compatible containers for proper disposal. For large spills, dike ahead of the spill.
---	--

## 7. HANDLING AND STORAGE

<b>Precautions To Be Taken in Handling:</b>	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.  Follow all MSDS/label precautions even after container is emptied because they may retain product residues.
<b>Precautions To Be Taken in Storing:</b>	Keep containers closed when not in use. Store in a cool, dry place, out of direct sunlight.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
100-51-6	Benzenemethanol {Benzyl alcohol}	No data.	No data.	No data.
143-18-0	Oleic acid potassium salt	No data.	No data.	No data.
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)}	PEL: 50 ppm	TLV: 20 ppm	No data.
112-34-5	Diethylene glycol monobutyl ether {2-(2-Butoxyethoxy)ethanol {(a glycol ether)}	No data.	No data.	No data.
770-35-4	Propylene glycol phenyl ether {(not 313)}	No data.	No data.	No data.

**Respiratory Equipment  
(Specify Type):**

When used by the consumer following directions for use and with adequate ventilation, respiratory protection is not expected to be needed.

A respiratory protection 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 the work area is not properly ventilated to keep airborne levels below their exposure limits, you must use a properly fitted and maintained NIOSH approved respirator for organic vapors. A dust mask does not provide protection against vapors.

**Eye Protection:**

Where contact with the eyes or face is likely from spraying or splashing, safety glasses, a faceshield or chemical goggles should be worn to prevent eye contact.

**Protective Gloves:**

When used as directed, protective gloves should not be required. For prolonged or repeated contact, wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as natural rubber or nitrile rubber provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information.

**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.):**

Ventilation is normally not required when handling or using this product to keep exposure to airborne contaminants below the exposure limit.  
Good general ventilation should be sufficient to control airborne levels.

**Work/Hygienic/Maintenance  
Practices:**

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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical States:** ☐ Gas ☒ Liquid ☐ Solid

**Appearance and Odor:** Slight yellow to clear, transparent, almond-like odor.

**Melting Point:** 32.00 F

**Boiling Point:** 212.00 F

**Autoignition Pt:** NP

**Flash Pt:** > 212.00 F Method Used: Setaflash Closed Cup (Rapid Setaflash)

**Explosive Limits:** LEL: none UEL: none

**Specific Gravity (Water = 1):** 0.997

**Density:** 8.3 LB/GL

**Vapor Pressure (vs. Air or mm Hg):** < 0.1 MM HG

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

**Evaporation Rate:** < 1

**Solubility in Water:** Complete

**pH:** 8.3 - 8.7

**Percent Volatile:** ~ 87 % by weight.

**VOC / Volume:** 3.0000 % WT

## 10. STABILITY AND REACTIVITY

**Stability:** Unstable ☐ Stable ☒

**Conditions To Avoid - Instability:** None known.

**Incompatibility - Materials To Avoid:** Strong oxidizing agents, isocyanates, acetaldehyde, aluminum alkyl compounds and strong mineral acids.

**Hazardous Decomposition Or Byproducts:** Carbon monoxide, carbon dioxide

**Possibility of Hazardous Reactions:** Will occur ☐ Will not occur ☒

**Conditions To Avoid - Hazardous Reactions:** None known.

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### 11. TOXICOLOGICAL INFORMATION

<b>Toxicological Information:</b>	Material has not been tested as a whole. Data is for individual ingredients. Refer to section 2 for acute and chronic effects.
<b>Chronic Toxicological Effects:</b>	<p>CAS# 111-76-2:</p> <p>Acute toxicity, LC50, Inhalation, Rat, 450.0 PPM, 4 H.</p> <p>Result:</p> <p>Behavioral: Ataxia.</p> <p>Nutritional and Gross Metabolic: Weight loss or decreased weight gain.</p> <p>- Toxicology and Applied Pharmacology, Academic Press, Inc., 1 E. First St., Duluth, MN 55802, Vol/p/yr: 68,405, 1983</p> <p>Acute toxicity, LD50, Skin, Species: Rabbit, 220.0 MG/KG.</p> <p>Result:</p> <p>Effects on Embryo or Fetus: Extra embryonic structures (e.g., placenta, umbilical cord).</p> <p>Effects on Embryo or Fetus: Other effects to embryo.</p> <p>Specific Developmental Abnormalities: Musculoskeletal system.</p> <p>- Dow Chemical Company Reports., Dow Chemical USA, Health and Environment Research, Toxicology Research Lab, Midland, MI 48640, Vol/p/yr: MSD-46,</p> <p>Acute toxicity, LD50, Oral, Rat, 250.0 mg/kg.</p> <p>Result:</p> <p>Lungs, Thorax, or Respiration: Changes in pulmonary vascular resistance.</p> <p>Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG, Severe.</p> <p>Result:</p> <p>Effects on Newborn: Apgar score (human only).</p> <p>Effects on Newborn: Other neonatal measures or effects.</p> <p>Effects on Newborn: Drug dependency.</p> <p>- American Journal of Ophthalmology., Ophthalmic Pub. Co., 435 N. Michigan Ave., Suite 1415, Chicago, IL 60611, Vol/p/yr: 29,1363, 1946</p> <p>CAS# 112-34-5:</p> <p>Standard Draize Test, Eyes, Species: Rabbit, 20.00 MG, Severe.</p> <p>Result:</p> <p>Behavioral: Anticonvulsant.</p> <p>- American Journal of Ophthalmology., Ophthalmic Pub. Co., 435 N. Michigan Ave., Suite 1415, Chicago, IL 60611, Vol/p/yr: 29,1363, 1946</p>
<b>Carcinogenicity/Other Information:</b>	ACGIH A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans IARC 3: Not Classifiable as to Carcinogenicity in Humans.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
100-51-6	Benzenemethanol {Benzyl alcohol}	n.a.	n.a.	n.a.	n.a.
143-18-0	Oleic acid potassium salt	n.a.	n.a.	n.a.	n.a.
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)}	n.a.	3	A3	n.a.
112-34-5	Diethylene glycol monobutyl ether {2-(2-Butoxyethoxy)ethanol {(a glycol ether)}}	n.a.	n.a.	n.a.	n.a.

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770-35-4	Propylene glycol phenyl ether {(not 313)}	n.a.	n.a.	n.a.	n.a.
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### 12. ECOLOGICAL INFORMATION

**General Ecological Information:** Not determined for this product as a whole.

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with all applicable local, state, and federal regulations. Do not dump into sewers or allow to enter waterways.

### 14. TRANSPORT INFORMATION

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not regulated by D.O.T.

**DOT Hazard Class:**

**UN/NA Number:**

**Additional Transport Information:**

### 15. REGULATORY INFORMATION

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

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
100-51-6	Benzenemethanol {Benzyl alcohol}	No	No	No
143-18-0	Oleic acid potassium salt	No	No	No
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)}	No	No	Yes-Cat. N230
112-34-5	Diethylene glycol monobutyl ether {2-(2-Butoxyethoxy)ethanol {(a glycol ether)}	No	No	Yes-Cat. N230
770-35-4	Propylene glycol phenyl ether {(not 313)}	No	No	No

**This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:**

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Acute (immediate) Health Hazard
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Chronic (delayed) Health Hazard
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Fire Hazard
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Sudden Release of Pressure Hazard
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
100-51-6	Benzenemethanol {Benzyl alcohol}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
143-18-0	Oleic acid potassium salt	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, (a glycol ether)}	CAA HAP,ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
112-34-5	Diethylene glycol monobutyl ether {2-(2-Butoxyethoxy)ethanol {(a glycol ether)}	CAA HAP,ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory, 4 Test; CA PROP.65: No
770-35-4	Propylene glycol phenyl ether {(not 313)}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A PAIR, 8D TERM; CA PROP.65: No

**SAFETY DATA SHEET**  
**Goof Off Heavy Duty 3% VOC**

Page: 8

Printed: 04/16/2015

Revision: 04/16/2015

Supersedes Revision: 04/14/2015

**16. OTHER INFORMATION**

**Revision Date:** 04/16/2015

**Preparer Name:** W.M. Barr EHS Dept (901)775-0100

**Additional Information About** No data available.

**This Product:**

**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

THE DOW CHEMICAL COMPANY

**Product name:** GREAT STUFF PRO™ Gaps & Cracks Insulating  
Foam Sealant STW 24oz HC EF 12ct

**Issue Date:** 04/10/2015

**Print Date:** 06/19/2015

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.

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## 1. IDENTIFICATION

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**Product name:** GREAT STUFF PRO™ Gaps & Cracks Insulating Foam Sealant STW 24oz HC EF 12ct

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

**Identified uses:** Polyurethane foam.

**COMPANY IDENTIFICATION**

THE DOW CHEMICAL COMPANY  
2030 WILLARD H DOW CENTER  
MIDLAND MI 48674-0000  
UNITED STATES

**Customer Information Number:**

800-258-2436

SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** 800-424-9300

**Local Emergency Contact:** 800-424-9300

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## 2. HAZARDS IDENTIFICATION

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**Hazard classification**

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Flammable aerosols - Category 2

Acute toxicity - Category 4 - Inhalation

Skin irritation - Category 2

Eye irritation - Category 2B

Respiratory sensitisation - Category 1

Skin sensitisation - Category 1

Carcinogenicity - Category 2

Effects on or via lactation

Specific target organ toxicity - single exposure - Category 3

Specific target organ toxicity - repeated exposure - Category 2 - Inhalation

## Label elements

### Hazard pictograms



Signal word: **DANGER!**

### Hazards

Flammable aerosol.

Causes skin and eye irritation.

May cause an allergic skin reaction.

Harmful if inhaled.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause respiratory irritation.

Suspected of causing cancer.

May cause harm to breast-fed children.

May cause damage to organs (Respiratory system) through prolonged or repeated exposure if inhaled.

### Precautionary statements

#### Prevention

Obtain special instructions before use.

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

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Avoid contact during pregnancy/ while nursing.

Wash skin thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.

Use personal protective equipment as required.

In case of inadequate ventilation wear respiratory protection.

#### Response

IF ON SKIN: Wash with plenty of soap and water.

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.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/ attention.

If skin irritation or rash occurs: Get medical advice/ attention.

If eye irritation persists: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.



**Storage**

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

**Disposal**

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

no data available

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### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

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This product is a mixture.

<b>Component</b>	<b>CASRN</b>	<b>Concentration</b>
Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer	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*

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.

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### **4. FIRST AID MEASURES**

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**Description of first aid measures**

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

**Skin contact:** Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

**Eye contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome). Repeated excessive exposure may aggravate preexisting lung disease. Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Although cholinesterase depression has been reported with this material, it is not of benefit in determining exposure and need not be considered in the treatment of persons exposed to the material. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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## **5. FIREFIGHTING MEASURES**

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**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Unsuitable extinguishing media:** Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

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

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Hydrogen cyanide.

**Unusual Fire and Explosion Hazards:** Contains flammable propellant. Aerosol cans exposed to fire can rupture and become flaming projectiles. Propellant release may result in a fireball. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or 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.

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## **6. ACCIDENTAL RELEASE MEASURES**

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**Personal precautions, protective equipment and emergency procedures:** Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep personnel out of low areas. Keep personnel out of confined or poorly ventilated areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. For large spills, warn public of downwind explosion hazard. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. 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.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Ground and bond all containers and handling equipment. Isolate area until gas has dispersed. Use non-sparking tools in cleanup operations. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Collect in suitable and properly labeled containers. Absorb with materials such as: Clay. Dirt. Milsorb®. Sand. Sawdust. Vermiculite. See

Section 10 for more specific information. See Section 13, Disposal Considerations, for additional information.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Keep away from heat, sparks and flame. Avoid contact with eyes. Avoid contact with 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. No smoking, open flames or sources of ignition in handling and storage area. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Contents under pressure. Do not puncture or incinerate container. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Do not enter confined spaces unless adequately ventilated. Never use air pressure for transferring product. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** Minimize sources of ignition, such as static build-up, heat, spark or flame. Store in a dry place. See Section 10 for more specific information.

### Storage stability

**Storage temperature:** 49 °C (120 °F)      **Shelf life: Use within** 12 Month

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Isobutane	ACGIH	STEL	1,000 ppm
Propane	ACGIH OSHA Z-1	TWA	1,800 mg/m3 1,000 ppm
Methyl ether	US WEEL	TWA	1,000 ppm
4,4' -Methylenediphenyl diisocyanate	ACGIH OSHA Z-1	TWA C	0.005 ppm 0.2 mg/m3 0.02 ppm

### Exposure controls

**Engineering controls:** Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure. Lethal concentrations may exist in areas with poor ventilation.

### Individual protection measures

**Eye/face protection:** Use safety glasses (with side shields).

#### Skin protection

**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene.

Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Viton. Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

Physical state	Foam
Color	Orange
Odor	Odorless
Odor Threshold	No test data available
pH	Not applicable
Melting point/range	No test data available
Freezing point	No test data available
Boiling point (760 mmHg)	Not applicable
Flash point	<b>closed cup</b> -104 °C ( -155 °F) <i>Estimated.</i>
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Flammable gas.
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	1,100 kPa at 55 °C (131 °F) <i>Supplier</i>
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	1.06 <i>Calculated.</i>
Water solubility	Insoluble

Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Kinematic Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	No
Molecular weight	no data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** no data available

**Chemical stability:** Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

**Possibility of hazardous reactions:** Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Acids.

**Conditions to avoid:** Avoid temperatures above 50 °C  
Elevated temperatures can cause container to vent and/or rupture. Exposure to elevated temperatures can cause product to decompose.

**Incompatible materials:** Avoid contact with: Acids. Alcohols. Amines. Ammonia. Bases. Metal compounds. Strong oxidizers. Products based on diisocyanates like TDI and MDI react with many materials to release heat. The reaction rate increases with temperature as well as with increased contact; these reactions can become violent. Contact is increased by stirring or if the other material acts as a solvent. Products based on diisocyanates such as TDI and MDI are not soluble in water and will sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information on this product or its components appear in this section when such data is available.*

**Acute toxicity**  
**Acute oral toxicity**

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Observations in animals include: Gastrointestinal irritation.

As product: Single dose oral LD50 has not been determined.

LD50, Rat, > 2,000 mg/kg Estimated.

**Acute dermal toxicity**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

LD50, Rabbit, > 2,000 mg/kg Estimated.

**Acute inhalation toxicity**

In confined or poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to displacement of oxygen. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause pulmonary edema (fluid in the lungs.) Effects may be delayed. May cause central nervous system depression. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). Decreased lung function has been associated with overexposure to isocyanates.

As product: The LC50 has not been determined.

**Skin corrosion/irritation**

Prolonged contact may cause moderate skin irritation with local redness.

Material may stick to skin causing irritation upon removal.

May stain skin.

**Serious eye damage/eye irritation**

May cause eye irritation.

May cause slight temporary corneal injury.

**Sensitization**

Skin contact may cause an allergic skin reaction.

Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

May cause allergic respiratory reaction.

MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized.

Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

May cause respiratory irritation.

Route of Exposure: Inhalation

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Tissue 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.

**Carcinogenicity**

Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m<sup>3</sup>) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

**Teratogenicity**

In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

**Reproductive toxicity**

Based on information for component(s): May cause harm to breastfed babies.

**Mutagenicity**

In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies; other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**COMPONENTS INFLUENCING TOXICOLOGY:**

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Acute inhalation toxicity**

The LC50 has not been determined.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Acute inhalation toxicity**

The LC50 has not been determined.

**Diphenylmethane Diisocyanate, isomers and homologues**

**Acute inhalation toxicity**

LC50, Rat, 4 Hour, dust/mist, 0.49 mg/l

For similar material(s): 2,4'-Diphenylmethane diisocyanate (CAS 5873-54-1). LC50, Rat, 4 Hour, Aerosol, 0.31 mg/l

For similar material(s): 4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8). LC50, Rat, 1 Hour, Aerosol, 2.24 mg/l

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Acute inhalation toxicity**

The LC50 has not been determined.

**Isobutane**

**Acute inhalation toxicity**



LC50, Mouse, 1 Hour, 52 mg/l

**Propane**

**Acute inhalation toxicity**

LC50, Rat, male and female, 4 Hour, vapour, > 425000 ppm

**Methyl ether**

**Acute inhalation toxicity**

LC50, Rat, 4 Hour, gas, 164000 ppm

**4,4' -Methylenediphenyl diisocyanate**

**Acute inhalation toxicity**

LC50, Rat, 1 Hour, dust/mist, 2.24 mg/l

**N,N'-Dimorpholinodiethylether**

**Acute inhalation toxicity**

The LC50 has not been determined.

**Carcinogenicity**

**Component**

Paraffin waxes and  
Hydrocarbon waxes,  
chlorinated

**List**

IARC

US NTP

**Classification**

Group 2B: Possibly carcinogenic to  
humans

Reasonably anticipated to be a human  
carcinogen

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information on this product or its components appear in this section when such data is available.*

**Toxicity**

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Acute toxicity to fish**

For this family of materials:

Material is practically non-toxic to aquatic organisms on an acute basis  
(LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Acute toxicity to fish**

Not expected to be acutely toxic to aquatic organisms.

**Diphenylmethane Diisocyanate, isomers and homologues**

**Acute toxicity to fish**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions  
maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis  
(LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

**Acute toxicity to aquatic invertebrates**

Based on information for a similar material:

EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

**Acute toxicity to algae/aquatic plants**

Based on information for a similar material:

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

Based on information for a similar material:

EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

**Toxicity to soil-dwelling organisms**

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

**Toxicity to terrestrial plants**

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Acute toxicity to fish**

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 0.1 mg/l

**Isobutane**

**Acute toxicity to fish**

No relevant data found.

**Propane**

**Acute toxicity to fish**

No relevant data found.

**Methyl ether**

**Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, Poecilia reticulata (guppy), semi-static test, 96 Hour, > 4,000 mg/l

**Acute toxicity to aquatic invertebrates**

LC50, Daphnia magna (Water flea), 48 Hour, > 4,000 mg/l, OECD Test Guideline 202 or Equivalent

**4,4' -Methylenediphenyl diisocyanate**

**Acute toxicity to fish**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis  
(LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

**Acute toxicity to aquatic invertebrates**

Based on information for a similar material:

EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

**Acute toxicity to algae/aquatic plants**

Based on information for a similar material:

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

Based on information for a similar material:

EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

**Toxicity to soil-dwelling organisms**

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

**Toxicity to terrestrial plants**

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

**N,N'-Dimorpholinodiethylether**

**Acute toxicity to fish**

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.

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 2,150 mg/l, OECD Test Guideline 203 or Equivalent

**Acute toxicity to aquatic invertebrates**

EC50, Daphnia (water flea), static test, 48 Hour, > 100 mg/l, OECD Test Guideline 202 or Equivalent

**Acute toxicity to algae/aquatic plants**

ErC50, Algae, static test, 72 Hour, > 100 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

EC50, Bacteria, static test, 3 Hour, 100 mg/l, activated sludge test (OECD 209)

**Persistence and degradability**

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Biodegradability:** For this family of materials: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Biodegradability:** Expected to degrade slowly in the environment.

**Diphenylmethane Diisocyanate, isomers and homologues**

**Biodegradability:** In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

**Biodegradation:** 0 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 302C or Equivalent

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Biodegradability:** Expected to degrade slowly in the environment.

**Theoretical Oxygen Demand:** 2.89 mg/mg

**Isobutane**

**Biodegradability:** Biodegradation may occur under aerobic conditions (in the presence of oxygen).

**Theoretical Oxygen Demand:** 3.58 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 4.4 d

**Method:** Estimated.

**Propane**

**Biodegradability:** No relevant data found.

**Theoretical Oxygen Demand:** 3.64 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 8.4 d

**Method:** Estimated.

**Methyl ether**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

**Biodegradation:** 5 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301A or Equivalent

**Theoretical Oxygen Demand:** 2.08 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 6.4 d

**Method:** Estimated.

**4,4' -Methylenediphenyl diisocyanate**

**Biodegradability:** In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

**Biodegradation:** 0 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 302C or Equivalent

**N,N'-Dimorpholinodiethylether**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

**Biodegradation:** 0 - 10 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301A or Equivalent

**Theoretical Oxygen Demand:** 2.49 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 0.03 d

**Method:** Estimated.

**Bioaccumulative potential**

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Bioaccumulation:** No relevant data found.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Bioaccumulation:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Diphenylmethane Diisocyanate, isomers and homologues**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Bioconcentration factor (BCF):** 92 Cyprinus carpio (Carp) 28 d

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Bioaccumulation:** Bioconcentration potential is low (BCF less than 100 or log Pow greater than 7).

**Partition coefficient: n-octanol/water(log Pow):** 7.4 Estimated.

**Isobutane**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.76 Measured

**Propane**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.36 Measured

**Methyl ether**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 0.10 Measured

**4,4' -Methylenediphenyl diisocyanate**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Bioconcentration factor (BCF):** 92 Cyprinus carpio (Carp) 28 d

**N,N'-Dimorpholinodiethylether**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 0.5 Estimated.

**Mobility in soil**

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

No relevant data found.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Diphenylmethane Diisocyanate, isomers and homologues**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Expected to be relatively immobile in soil (Koc > 5000).

**Partition coefficient(Koc):** > 5000 Estimated.

**Isobutane**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient(Koc):** 35 Estimated.

**Propane**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient(Koc):** 24 - 460 Estimated.

**Methyl ether**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient(Koc):** 1.29 - 14 Estimated.

**4,4' -Methylenediphenyl diisocyanate**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**N,N'-Dimorpholinodiethylether**

Potential for mobility in soil is low (Koc between 500 and 2000).

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(Koc):** 784 Estimated.

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### 13. DISPOSAL CONSIDERATIONS

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**Disposal methods:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

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### 14. TRANSPORT INFORMATION

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**DOT**

Proper shipping name	Aerosols
UN number	UN 1950
Class	2.1
Packing group	

**Classification for SEA transport (IMO-IMDG):**

Proper shipping name	AEROSOLS
UN number	UN 1950
Class	2.1
Packing group	
Marine pollutant	Paraffin waxes and Hydrocarbon waxes, chlorinated
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

Proper shipping name	Aerosols, flammable
UN number	UN 1950
Class	2.1
Packing group	

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container

volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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## **15. REGULATORY INFORMATION**

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### **OSHA Hazard Communication Standard**

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

### **Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Acute Health Hazard  
Chronic Health Hazard  
Fire Hazard

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

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

#### **Components**

#### **CASRN**

Diphenylmethane Diisocyanate, isomers and homologues  
4,4' -Methylenediphenyl diisocyanate

9016-87-9  
101-68-8

### **Pennsylvania Worker and Community Right-To-Know Act:**

The following chemicals are listed because of the additional requirements of Pennsylvania law:

#### **Components**

#### **CASRN**

Isobutane  
Propane  
Methyl ether

75-28-5  
74-98-6  
115-10-6

### **California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

### **United States TSCA Inventory (TSCA)**

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

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## 16. OTHER INFORMATION

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### Revision

Identification Number: 101216112 / A001 / Issue Date: 04/10/2015 / Version: 3.0

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

### Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
C	Ceiling
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
STEL	Short-term exposure limit
TWA	8-hour, time-weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

### Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.



INNOVATIONS FOR LIVING™

**SAFETY DATA SHEET**

<b>Personal Protective Equipment</b>  Protective Gloves      Safety Glasses	<b>IATA Pictograms</b> <b>Not Regulated</b>
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**SECTION 1 - IDENTIFICATION**

**Product Name:** Heavy Density Pipe Insulation  
**SDS Manufacturer Number:** 18994-SAM-EN  
**Synonyms:** ASJ 25 Pipe Insulation, ASJ/SSL II® Pipe Insulation, Heavy Density Pipe Insulation, No-Wrap Pipe Insulation, Pipeshield, SSL® Pipe Insulation, SSL-II® Pipe Insulation, VaporWick®, Vitro Fibras Pipe Insulation, Evolution™ Paper-Free ASJ, Aislamiento para Tubería Pipe Insulation  
**Product Use/Restriction:**  
**Manufacturer Name:** Owens Corning Insulating Systems, LLC  
**Address:** One Owens Corning Parkway  
Toledo, OH 43659  
**Customer Service Phone Number:** 1-800-GET-PINK or 1-800-438-7465  
**Health Issues Information:** 1-800-GET-PINK or 1-800-438-7465  
**Technical Product Information:** 1-800-GET-PINK or 1-800-438-7465  
**Emergency Phone Number:** 1-419-248-5330 (after 5pm ET and weekends)  
**CHEMTREC:** 800-424-9300 (24 hours everyday)  
**Website:** www.owenscorning.com  
**SDS Creation Date:** May 16, 1995  
**SDS Revision Date:** January 14, 2013

**SECTION 2 - HAZARD(S) IDENTIFICATION****Applies to Product**

**Emergency Overview:** Exposure to dust may be irritating to eyes, nose, and throat.

**Route of Exposure:** Eye contact  
Skin contact  
Inhalation

**Potential Health Effects:**

**Eye:** May cause slight irritation.

**Skin:** May cause slight skin irritation.

**Inhalation:** May cause irritation of respiratory tract.

**Ingestion:** Ingestion of this product is unlikely.

**Chronic Health Effects:** There is no known chronic health effect connected with long-term use or contact with this product.

**Potential Environmental Effects:** There is no known ecological information for this material.

**Aggravation of Pre-Existing Conditions:** Chronic respiratory or skin conditions may temporarily worsen from exposure to this product.

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS#	Ingredient Percent
Fiber Glass (Wool)	65997-17-3	60 - 100 by weight
Cured Binder	N/A	0 - 40 by weight

**Non-Hazardous Statement:** The remaining components of this product are non-hazardous or are in a small enough quantity as to not meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product.

#### SECTION 4 - FIRST AID MEASURES

<b>Eye Contact:</b>	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Do not rub or scratch eyes. If eye irritation persists, consult a specialist.
<b>Skin Contact:</b>	Wash off immediately with soap and cold water. DO NOT use warm water because this will open up the pores of the skin, which will cause further penetration of the fibers. Use a wash cloth to help remove fibers. DO NOT rub or scratch affected areas. Remove contaminated clothing. If irritation persists get medical attention. Never use compressed air to remove fibers from the skin. If fibers are seen penetrating from the skin, the fibers can be removed by applying and removing adhesive tape so that the fibers adhere to the tape and are pulled out of the skin.
<b>Inhalation:</b>	Move to fresh air. If symptoms persist, call a physician.
<b>Ingestion:</b>	Accidental ingestion of this material is unlikely. If this does occur, watch person for several days to make sure intestinal blockage does not occur. Rinse mouth with water and drink water to remove fibers from the throat. If symptoms persist, call a physician.
<b>Note to Physicians:</b>	Treat symptomatically.

#### SECTION 5 - FIRE FIGHTING MEASURES

<b>Flammable Properties:</b>	Non Flammable.
<b>Flash Point:</b>	Does not apply.
<b>Auto Ignition Temperature:</b>	Does not apply.
<b>Extinguishing Media:</b>	dry chemical foam carbon dioxide (CO2) water fog
<b>Protective Equipment:</b>	Wear self-contained breathing apparatus (SCBA) and full fire fighting protective gear.
<b>Unusual Fire Hazards:</b>	Hydrogen chloride to be released from the PVC barrier and vinyl facings during a fire.
<b>Hazardous Combustion Byproducts:</b>	Carbon monoxide. Carbon dioxide. Ammonia. Other undetermined compounds could be released in small quantities.
<b>Universal Fire And Explosion Hazards:</b>	Not available.
<b><u>NFPA Ratings:</u></b>	
<b>NFPA Health:</b>	2
<b>NFPA Flammability:</b>	1
<b>NFPA Reactivity:</b>	0
<b>NFPA Other:</b>	

#### SECTION 6 - ACCIDENTAL RELEASE MEASURES

<b>Personnel Precautions:</b>	Avoid contact with skin and eyes.
<b>Environmental Precautions:</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for containment:</b>	This material will settle out of the air. Prevent from spreading by covering, diking or other means.
<b>Methods for cleanup:</b>	Use an industrial vacuum cleaner with a high efficiency filter to clean up dust and fiber contamination. Avoid dry sweeping. Pick up and transfer to properly labeled containers.
<b>Other Precautions:</b>	Does not apply.

#### SECTION 7 - HANDLING and STORAGE

<b>Handling:</b>	Avoid dust formation. Do not breathe dust.
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Wear personal protective equipment.

**Storage:** Keep product in its packaging until use to minimize potential dust generation.  
Product should be kept dry and undercover.

**Hygiene Practices:** Wash hands before breaks and immediately after handling the product.  
Remove and wash contaminated clothing before re-use.

## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

**Engineering Controls:** Provide local exhaust and/or general ventilation to maintain exposure below regulatory and recommended limits.  
Dust collection system must be used in transferring operations, cutting or machining or other dust generating processes, such as using power tools.  
Vacuum or wet clean-up methods should be used.

**Eye/Face Protection:** Safety glasses with side-shields.

**Skin Protection Description:** Protective gloves.  
Long sleeved shirt and long pants.

**Respiratory Protection:** When workers are facing airborne particulate/dust concentrations above the exposure limit they must use appropriate certified respirators.  
A properly fitted NIOSH approved disposable N 95 type dust respirator or better is recommended.

**Other Protective:** When the temperature of the surface being insulated exceeds 250°F (121°C), including initial startup, the binder in these products may undergo various degrees of decomposition depending on the temperature in the application.  
The need for respiratory protection will vary according to the airborne concentration of the decomposition products released and accumulated in the area.  
Wear the appropriate respiratory protection according to the conditions and exposure levels in the area.

### EXPOSURE GUIDELINES

Ingredient	Guideline OSHA	Guideline ACGIH	Ontario Canada	Mexico	
Fiber Glass (Wool)	TLV-TWA: 1 f/cc (Respirable)	TLV-TWA: 1 f/cc (Respirable)	TWAEV-TWA: 0.05 mg/m <sup>3</sup> or 1 f/cc STEL: 0.6 mg/m <sup>3</sup>	TWA: 0.15 mg/m <sup>3</sup>	

## SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

**Physical State Appearance:** Tan with or without jacket of paper or aluminized plastic film.

**Color:** Tan

**Odor:** Faint resin odor.

**Boiling Point:** No Data

**Melting Point:** No Data

**Specific Gravity:** No Data

**Solubility:** Insoluble in water.

**Vapor Density:** No Data

**Vapor Pressure:** No Data

**Evaporation Rate:** No Data

**pH:** No Data

**Viscosity:** No Data

**Flash Point:** Does not apply.

**Auto Ignition Temperature:** Does not apply.

## SECTION 10 - STABILITY and REACTIVITY

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

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

**Conditions to Avoid:** None expected

**Incompatible Materials:** No materials to be especially mentioned.

**Special Decomposition Products:** See Section 5 of MSDS for hazardous decomposition products during a fire.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Applies to Product :

**Acute Toxicity:** Dusts may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. High exposures may cause difficulty breathing, congestion, and chest tightness.

<b>Carcinogens:</b>							
	<b>ACGIH</b>			<b>IARC</b>		<b>Canada</b>	<b>MEXICO</b>
<b>Fiber Glass (Wool)</b>	A3 Animal Carcinogen			Group 3 - Not Classifiable as to its Carcinogenicity to Humans.			A3 Animal Carcinogen
<b>Cured Binder</b>	No Data			No Data			No Data

**Applies to Product :**

**Sensitization:** No information available.

**Mutagenicity:** No information available.

**Reproductive Toxicity:** No information available.

**Teratogenicity:** No information available.

**Neurological Effects:** No information available.

**Fiber Glass (Wool) :**

**Chronic Effects:** In June 2011, The National Toxicology Program (NTP) removed biosoluble glass wool fibers from its list of possible carcinogens used for home and building insulation. In October 2001, the International Agency for Research on Cancer (IARC) classified fiber glass wool as Group 3,"not classifiable as to its carcinogenicity to humans". The 2001 decision was based on human studies and animal research that have not shown an association between inhalation exposure to dust from fiber glass wool and the development of respiratory disease.

**Cured Binder :**

**Ingestion:** Ingestion - Rat LD50: 7 gm/kg - [Autonomic Nervous System - Other (direct) parasympathomimetic Behavioral - Muscle weakness Lungs, Thorax, or Respiration - Respiratory depression](RTECS)

**Acute Toxicity**

## SECTION 12 - ECOLOGICAL INFORMATION

**Applies to Product :**

**Ecotoxicity:** This material is not expected to cause harm to animals, plants or fish.

**Environmental Stability:** Not available.

**Environmental Fate:** Not available.

**Bioaccumulation:** Not available.

**Biodegradation:** Not available.

**Mobility In Environmental Media:** Not available.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Applies to Product :**

**Waste Disposal:** Dispose of in accordance with Local, State, Federal and Provincial regulations.

## SECTION 14 - TRANSPORT INFORMATION

**IATA Shipping Name:** Not Regulated.

**MEX Shipping Name :** Not Regulated.

## SECTION 15 - REGULATORY INFORMATION

### Inventory Status

	<b>Japan ENCS</b>	<b>Philippines PICCS</b>	<b>China</b>	<b>South Korea KECL</b>	<b>Australia AICS</b>
<b>Fiber Glass (Wool)</b>	Not listed	Listed	Listed	KE-17630	Listed
<b>Cured Binder</b>	Not listed		Listed	KE-35185	Listed

	<b>TSCA Inventory</b>				
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	Status				
Fiber Glass (Wool)	Listed				
Cured Binder	Listed				

## SECTION 16 - ADDITIONAL INFORMATION

SDS Creation Date:	May 16, 1995
SDS Revision Date:	January 14, 2013
MSDS Revision Notes:	Section 11 Updated with 2011 NTP Evaluation
Disclaimer:	Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

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**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Trade name : CalCoat-127®

Manufacturer or supplier's details

Company : Johns Manville

Address : P.O. Box 5108  
Denver, CO USA 80127

Telephone : 303-978-2000 8:00AM-5:00PM M-F

Emergency telephone number : 1-800-424-9300 (Chemtrec, in English)

Prepared by : productsafety@jm.com

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Skin corrosion : Category 1

Serious eye damage : Category 1

Carcinogenicity : Category 1A

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

**GHS Label element**

Hazard pictograms



Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.  
H350 May cause cancer.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust or mist.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P281 Use personal protective equipment as required.

**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/

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shower.

P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

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

P363 Wash contaminated clothing before reuse.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous components**

Chemical Name	CAS-No.	Concentration (%)
cement, portland, chemicals	65997-15-1	>= 30 - < 50
synthetic calcium silicate	1344-95-2	>= 30 - < 50
Continuous Filament Glass Fibers	Not Assigned	>= 20 - < 30
Crystalline silica	14808-60-7	>= 0.1 - < 1

**SECTION 4. FIRST AID MEASURES**

General advice	: Do not leave the victim unattended.
If inhaled	: If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of eye contact	: Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist.
If swallowed	: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**SECTION 5. FIREFIGHTING MEASURES**

Hazardous combustion products	: No hazardous combustion products are known
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- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid dust formation.
- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Keep in a dry, cool place.
- Materials to avoid : No materials to be especially mentioned.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
cement, portland, chemicals	65997-15-1	TWA (Respirable fraction)	1 mg/m <sup>3</sup>	ACGIH
		TWA (Respirable)	5 mg/m <sup>3</sup>	NIOSH REL
		TWA (total)	10 mg/m <sup>3</sup>	NIOSH REL
		TWA (total dust)	15 mg/m <sup>3</sup>	OSHA
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA
		TWA (Total dust)	10 mg/m <sup>3</sup>	OSHA
		TWA (respirable)	5 mg/m <sup>3</sup>	OSHA

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		dust fraction)		
		TWA (Dust)	50 Million particles per cubic foot	OSHA
synthetic calcium silicate	1344-95-2	TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3	OSHA
		TWA (respirable fraction)	5 mg/m3	OSHA
		TWA	10 mg/m3	ACGIH
Continuous Filament Glass Fibers	Not Assigned	TWA (Total dust)	10 mg/m3	ACGIH
		TWA (Total dust)	15 mg/m3	OSHA
		TWA (Respirable dust)	5 mg/m3	OSHA
		TWA (Respirable dust)	5 mg/m3	ACGIH
Crystalline silica	14808-60-7	TWA (Respirable fraction)	0.025 mg/m3	ACGIH
		TWA (total dust)	30 mg/m3 / %SiO <sub>2</sub> +2	OSHA
		TWA (respirable)	10 mg/m3 / %SiO <sub>2</sub> +2	OSHA
		TWA (respirable)	250 mppcf / %SiO <sub>2</sub> +5	OSHA
		TWA (Respirable dust)	0.05 mg/m3	NIOSH REL
		TWA (Respirable fraction)	0.1 mg/m3	OSHA

### Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection  
Remarks : For prolonged or repeated contact use protective gloves.

Eye protection : Safety glasses

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Skin and body protection	: If used and stored as directed, no special protective equipment is necessary.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Written instructions for handling must be available at the work place.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: solid
Colour	: yellow
Odour	: not significant
Odour Threshold	: No data available
pH	: Not applicable
	: Not applicable
	: Not applicable
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: No data available
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Relative density	: No data available
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available

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Viscosity, kinematic : No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : Stable under recommended storage conditions.  
No hazards to be specially mentioned.

Conditions to avoid : No data available

**SECTION 11. TOXICOLOGICAL INFORMATION****IARC** Group 1: Carcinogenic to humans  
Crystalline silica 14808-60-7**ACGIH** Suspected human carcinogen  
Crystalline silica 14808-60-7**OSHA** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.**NTP** Known to be human carcinogen  
Crystalline silica 14808-60-7**STOT - single exposure****Components:****synthetic calcium silicate:**

Target Organs: Eyes, Lungs

**Further information****Product:**

Remarks: No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

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**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information

: No data available

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Contaminated packaging

: Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Packaging that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.**SECTION 14. TRANSPORT INFORMATION****International transport regulations**

These products are not classified as dangerous goods according to international transport regulations.

**SECTION 15. REGULATORY INFORMATION****TSCA list**

: Not relevant

Not relevant

**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302**

: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

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

Crystalline silica

14808-60-7

**The components of this product are reported in the following inventories:**

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL.

**SECTION 16. OTHER INFORMATION****Further information**

Revision Date : 01/16/2015

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

## SAFETY DATA SHEET

### SECTION 1 - IDENTIFICATION

Manufacturer's name and address:



**K-FLEX USA**

K-FLEX USA  
100 Nomaco Dr  
Youngsville, NC 27596  
USA

Supplier's name and address:

Refer to Manufacturer

Telephone No.: (800) 765-6475

Website Address: [www.kflexusa.com](http://www.kflexusa.com)

Product Identifier: K-FLEX Elastomeric Foam; K-FLEX INSUL-TUBE, K-FLEX INSUL-SHEET, K-FLEX INSUL-SHEET S2S, K-FLEX INSUL-TUBE COIL, K-FLEX INSUL-LOCK, K-FLEX INSUL-LOCK SEAM SEAL, K-FLEX INSUL-TUBE WHITE, K-FLEX DUCT LINER GRAY, K-FIT, ELASTOMERIC TAPE, K 40-P, K 41-P, K 41-PA

Chemical Name: NBR/PVC Elastomeric Foam

Recommended Use: This product is classified as an "article" according to Title 29 of the Code of Federal Regulations, OSHA Part 1910.1200C.

### SECTION 2 – HAZARD(S) IDENTIFICATION

Hazardous Ingredient: None

### SECTION 3 – COMPOSITION / INFORMATION OF INGREDIENTS

Description: Elastomeric closed-cell foam comprised of nitrile butadiene rubber / polyvinyl chloride (NBR/PVC). Available in rolls and sheets of various dimensions.

### SECTION 4 – FIRST-AID MEASURES

Inhalation: Unlikely route of exposure. No measures established.

Skin Contact: If rash or irritation develops, wash with soap and water. If rash or irritation persists, consult a physician.

Eye Contact: Small particles may cause irritation. Flush with water. If irritation persists, consult a physician.

Ingestion: Unlikely route of exposure. No adverse effects anticipated.

## SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing Media: Water, CO<sub>2</sub>, Dry Chemical, Foam

Special Firefighting Procedures: Recommend NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing be worn.

Decomposition Products: Upon combustion, HCl, HCN, and other hazardous gases may be evolved.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Recommend light to medium duty cloth or leather gloves and approved safety glasses.

Emergency Procedures: None.

## SECTION 7 – HANDLING AND STORAGE

Hints for Safe Handling: None.

Hints for Fire and Explosion Protection: None.

Hints for Separation of Incompatible Materials: None.

Storage Recommendations: Avoid storage in confined areas where temperatures may exceed 51°C (125°F).

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Medical Conditions Aggravated by Exposure: Not established.

Codes Used: N/A

General Health Measures: N/A



Engineering Controls: Local exhaust ventilation is recommended for control of airborne dust, fumes, and vapors in confined areas.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Sheets, rolls, and tubes; some with self-adhesive
Color:	Black, white, or gray.
Odor:	Negligible to no odor.
Melting Point:	N/A
Boiling Point:	N/A
Lower Explosion Limit:	N/A
Upper Explosion Limit:	N/A
Vapor Pressure @ 20°C:	0.1
Vapor Density (Air = 1):	N/A
Solubility:	Insoluble
Specific Gravity (H <sub>2</sub> O = 1):	N/A
Flash Point:	N/A

## SECTION 10 – STABILITY AND REACTIVITY

Stability:	Stable.
Incompatibility:	N/A
Decomposition Products:	Upon combustion, HCl, HCN, and other hazardous gases may be evolved.

## SECTION 11 – TOXICOLOGICAL INFORMATION

Effects on short- and long-term Exposure:	When used and handled according to specification, the product does not have any harmful effect to the best of our knowledge.
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## **SECTION 12 – ECOLOGICAL INFORMATION**

Classified as non-hazardous to waters.

## **SECTION 13 – DISPOSAL CONSIDERATIONS**

Disposal: Not a RCRA hazardous waste. Dispose of in accordance with local, state, and federal regulations.

## **SECTION 14 – TRANSPORT INFORMATION**

No hazardous materials.

## **SECTION 15 – REGULATORY INFORMATION**

N/A

## **SECTION 16 – OTHER INFORMATION**

Revised April, 2015. The information and recommendations contained herein are based upon data that is accurate and reliable, to the best of K-FLEX USA, LLC knowledge and belief. With respect to information and recommendations, K-FLEX USA, LLC makes no representations or warranties of any kind or nature, expressed or implied.

# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	STRUST +SSPR 6PK METALC ALUMINUM	<b>Revision Date:</b>	10/9/2015
<b>Product Identifier:</b>	7715830	<b>Supersedes Date:</b>	10/9/2015
<b>Product Use/Class:</b>	Topcoat/Aerosol		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### Possible Hazards

76% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Skin Irritation, category 2	H315	Causes skin irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Reproductive Toxicity, category 2	H361	Suspected of damaging fertility or the unborn child. Classified Category 2 suspected human reproductive toxicant irreversible effects such as structural malfunctions, embryo/foetal lethality, post natal functional deficiencies.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.

### GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust, fumes, gases, mists, vapors, or spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P362	Take off contaminated clothing.

P410+P403  
P410+P412

Protect from sunlight. Store in a well-ventilated place.  
Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.

### 3. Composition/Information On Ingredients

#### HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.% Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Propane	74-98-6	10-25	GHS04	H280
Toluene	108-88-3	10-25	GHS02-GHS07- GHS08	H225-304-315-332-336-361-373
Hydrotreated Light Distillate	64742-47-8	10-25	GHS08	H304
n-Butane	106-97-8	2.5-10	GHS04	H280
Aluminum Flake	7429-90-5	2.5-10	GHS02	H228-261
Xylene (mixed isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Stoddard Solvent	8052-41-3	1.0-2.5	GHS08	H304-372
Ethylbenzene	100-41-4	1.0-2.5	GHS02-GHS07	H225-332

### 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

**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. Keep containers tightly closed. 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.

**SPECIAL FIREFIGHTING PROCEDURES:** Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. 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 in a well-ventilated area. 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:** Store in a dry, well ventilated place. Keep container tightly closed when not in use. 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. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120 ° F. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

## 8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
Propane	74-98-6	25.0	N.E.	N.E.	1000 ppm	N.E.
Toluene	108-88-3	20.0	20 ppm	N.E.	200 ppm	300 ppm
Hydrotreated Light Distillate	64742-47-8	20.0	N.E.	N.E.	N.E.	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Aluminum Flake	7429-90-5	10.0	1 mg/m3	N.E.	15 mg/m3	N.E.
Xylene (mixed isomers)	1330-20-7	10.0	100 ppm	150 ppm	100 ppm	N.E.
Stoddard Solvent	8052-41-3	5.0	100 ppm	N.E.	500 ppm	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. 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.

**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. Use impervious gloves to prevent skin contact and absorption of this material through the skin. 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. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

**HYGIENIC PRACTICES:** Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Aerosolized Mist	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	0.758	<b>pH:</b>	N.D.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Slight	<b>Partition Coefficient, n-octanol/ water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	0.9 - 9.5
<b>Boiling Range, °C:</b>	-24 - 204	<b>Flash Point, °C:</b>	-96
<b>Flammability:</b>	Supports Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Faster than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition. Flammable hydrogen gas will evolve when product comes in contact with water or damp air. Heat will be generated. The amount of heat generated will depend upon the volume of material in contact.

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalis.

**HAZARDOUS DECOMPOSITION:** By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## 11. Toxicological information

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Causes Serious Eye Irritation

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Substance may cause slight skin irritation. May be absorbed through the skin in harmful amounts. May cause skin irritation. Allergic reactions are possible. Prolonged or repeated contact may cause skin irritation.

**EFFECTS OF OVEREXPOSURE - INHALATION:** Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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).

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat
108-88-3	Toluene	2600 mg/kg Rat	12000 mg/kg Rabbit	12.5 mg/L Rat
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
1330-20-7	Xylene (mixed isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.2 mg/L Rat

N.I. - No Information

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components. Product is a mixture of listed components.

## 13. Disposal Information

**DISPOSAL INFORMATION:** Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

## 14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
<b>UN Number:</b>	N.A.	1950	1950	N.A.
<b>Proper Shipping Name:</b>	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
<b>Hazard Class:</b>	N.A.	2.1	2.1	N.A.
<b>Packing Group:</b>	N.A.	N.A.	N.A.	N.A.
<b>Limited Quantity:</b>	Yes	Yes	Yes	Yes

## 15. Regulatory Information

**U.S. Federal Regulations:****CERCLA - SARA Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

**Sara Section 313:**

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Toluene	108-88-3
Aluminum Flake	7429-90-5
Xylene (mixed isomers)	1330-20-7
Ethylbenzene	100-41-4

**Toxic Substances Control Act:**

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

**16. Other Information****HMIS RATINGS**

Health: 2\*      Flammability: 4      Physical Hazard: 0      Personal Protection: X

**NFPA RATINGS**

Health: 2      Flammability: 4      Instability: 0

VOLATILE ORGANIC COMPOUNDS, g/L: 589

SDS REVISION DATE: 10/9/2015

REASON FOR REVISION: Substance and/or Product Properties Changed in Section(s):  
02 - Hazard Identification  
03 - Composition/Information on Ingredients  
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

**Section 1 - Chemical Product and Company Identification****Product Name** Fiber Glass Wool Insulation, Acrylic Binder**CAS#** 65997-17-3**Generic Name** Fiber Glass Wool Product**Formula** Mixture**Chemical Name:** Mixture**Hazard Label** FBG-003**Manufacturer Information**Johns Manville  
Insulation Systems  
P.O. Box 5108  
Denver, CO 80127 USATelephone: 303-978-2000 8:00AM-5:00PM M-F  
Internet Address: <http://www.jm.com>  
Emergency: 800-424-9300 (Chemtrec, In English)**Trade Names:** EnviroAire™; Microlite® Duct Wrap**Section 2 - Composition / Information on Ingredients**

CAS #	Component	Percent
65997-17-3	Continuous filament glass fiber (Facing)	3-7
65997-17-3	Fiber Glass Wool	50-98
Not Available	FSK or vinyl facing	1-40
Proprietary	Acrylic Binder	2-20
7429-90-5	Aluminum (in facing)	1-10
Not Available	Acrylic Coating	0-10*
Not Available	LAWX adhesive (JM)	1-3
1309-64-4	Antimony trioxide	<1**

**Additional Component Information**

\*Acrylic Coating present only in EnviroAire™.

\*\*Antimony trioxide (fire retardant) present only in Microlite® Duct Wrap facing and/or adhesive. Occupational exposure to airborne antimony trioxide is not expected to occur due to product form(s) and intended use(s). Exposure limit is given for reference only.

**Section 3 - Hazards Identification****Emergency Overview**

APPEARANCE AND ODOR: Pre-formed, molded plastic sheets and shapes of varying colors. White fibrous glass blanket or board with facing. No significant odor.

Under normal conditions of use and handling, this product is not expected to create any health or safety hazards.

Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation and/or congestion--remove individual to fresh air.

**Potential Health Effects****Summary**

Breathing dust from this product may cause a scratchy throat, congestion, and slight coughing. Getting dust or fibers on the skin, or in the eyes may cause itching, rash, or redness. Additional health and safety information is provided in Section 11 of this material safety data sheet.

**Inhalation**

Irritation of the upper respiratory tract (scratchy throat), coughing, and congestion may occur in extreme exposures.



**Skin**

Temporary irritation (itching) or redness may occur.

**Absorption**

Not applicable

**Ingestion**

This product is not intended to be ingested (eaten). If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

**Eyes**

Temporary irritation (itching) or redness may occur.

**Ears**

Temporary irritation (itching) or redness may occur.

**Primary Routes of Entry (Exposure)**

Inhalation (breathing dust), skin, and eye contact.

**Target Organs**

Nose (nasal passages), throat, lungs, skin, eyes.

**Medical Conditions Aggravated by Exposure**

Pre-existing chronic respiratory, skin, or eye diseases or conditions.

<b>Section 4 - First Aid Measures</b>
---------------------------------------

**First Aid: Inhalation**

Remove to fresh air. Drink water to clear throat, and blow nose to remove dust.

**First Aid: Skin**

Wash gently with soap and water to remove dust. Wash hands before eating or using the restroom.

**First Aid: Ingestion**

Product is not intended to be ingested or eaten. If this product is ingested, irritation of the gastrointestinal (GI) tract may occur, and should be treated symptomatically. Rinse mouth with water to remove fibers, and drink plenty of water to help reduce the irritation. No chronic effects are expected following ingestion.

**First Aid: Eyes**

Do not rub or scratch your eyes. Dust particles may cause the eye to be scratched. Flush eyes with large amounts of water for 5-15 minutes. If irritation persists, contact a medical professional.

**First Aid: Ears**

Do not rub or scratch the ear if itching occurs. Wash gently with soap and warm water to remove dust or fibers.

**First Aid: Notes to Physician**

This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

<b>Section 5 - Fire Fighting Measures</b>
---

**Flash Point:** Not applicable

**Upper Flammable Limit (UFL):** Not applicable

**Auto Ignition:** Not determined

**Rate of Burning:** Not determined

**General Fire Hazards**

There is no potential for spontaneous fire or explosion.

**Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>), water, water fog, dry chemical.

**Fire Fighting Equipment/Instructions**

No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

**Method Used:** Not applicable

**Lower Flammable Limit (LFL):** Not applicable

**Flammability Classification:** Not determined

<b>Section 6 - Accidental Release Measures</b>
--

**Containment Procedures**

Pick up large pieces. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation or use compressed air for clean-up. These procedures will help to minimize potential exposures.

**Clean-Up Procedures**

Avoid the generation of dusts during clean-up.

**Section 7 - Handling and Storage****Handling Procedures**

Use protective equipment as described in Section 8 of this material safety data sheet when handling uncontained material.

**Storage Procedures**

Warehouse storage should be in accordance with package directions, if any. Material should be kept clean, dry, and protected from moisture.

**Section 8 - Exposure Controls / Personal Protection****Exposure Guidelines****A: General Product Information**

Glass wool fiber, OSHA voluntary Health and Safety Partnership Program (HSPP): 1 f/cc TWA for fibers longer than 5 µm with a diameter less than 3 µm.

**B: Component Exposure Limits****Fiber Glass Wool (65997-17-3)**

ACGIH: 1 fiber/cm<sup>3</sup> TWA (respirable fibers, length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination); 5 mg/m<sup>3</sup> TWA (inhalable fraction)

**Fiber Glass Wool (65997-17-3)**

ACGIH: 1 fiber/cm<sup>3</sup> TWA (respirable fibers, length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination)

**Aluminum (in facing) (7429-90-5)**

ACGIH: 10 mg/m<sup>3</sup> TWA (metal dust)

OSHA: 15 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

**PERSONAL PROTECTIVE EQUIPMENT****Personal Protective Equipment: Eyes/Face**

Safety glasses with sideshields are recommended to keep dust out of the eyes.

**Personal Protective Equipment: Ears**

Use ear protection (earplugs, hood, or earmuffs) to prevent airborne dust or fibers from entering the ear.

**Personal Protective Equipment: Skin**

Leather or cotton gloves should be worn to prevent skin contact and irritation. Barrier creams may also be used to reduce skin contact and irritation caused by fiber glass.

**Personal Protective Equipment: Respiratory**

A respirator should be used if ventilation is unavailable, or is inadequate for keeping dust and fiber levels below the applicable exposure limits. In those cases, use a NIOSH-certified disposable or reusable particulate respirator with an efficiency rating of N95 or higher (under 42 CFR 84) when working with this product. For exposures up to five times the established exposure limits use a quarter-mask respirator, rated N95 or higher; and for exposures up to ten times the established exposure limits use a half-mask respirator (e.g., MSA's DM-11, Racal's Delta N95, 3M's 8210), rated N95 or higher. Operations such as sawing, blowing, tear out, and spraying may generate airborne fiber concentrations requiring a higher level of respiratory protection. For exposures up to 50 times the established exposure limits use a full-face respirator, rated N99 or higher.

**Ventilation**

In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting to remove airborne dust and fibers. General dilution ventilation should be provided as necessary to keep airborne dust and fibers below the applicable exposure limits and guidelines. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.

**Personal Protective Equipment: General**

Wear a cap, a loose-fitting, long-sleeved shirt and long pants to protect skin from irritation. Exposed skin areas should be washed with soap and warm water after handling or working with fiber glass. Clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiber glass being transferred to other clothing.

**Section 9 - Physical & Chemical Properties**

<b>Appearance:</b>	White fibrous glass blanket or board with FSK or vinyl facing.	<b>Odor:</b>	No significant odor
<b>Physical State:</b>	Solid	<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable	<b>Vapor Density:</b>	Not applicable
<b>Boiling Point:</b>	Not determined	<b>Melting Point:</b>	>704°C/1300°F
<b>Solubility (H<sub>2</sub>O):</b>	Nil	<b>Specific Gravity:</b>	Variable
<b>Freezing Point:</b>	Not applicable	<b>Evaporation Rate:</b>	Not applicable
<b>Percent Volatile:</b>	0	<b>VOC:</b>	Not applicable

**Section 10 - Chemical Stability & Reactivity Information****Chemical Stability**

This is a stable material. This product is not reactive.

**Hazardous Decomposition**

Although fiber glass itself is not combustible, the following decomposition products may be released during burning of the insulation binder: carbon monoxide, carbon dioxide, carbon particles, and small hydrocarbons.

**Hazardous Polymerization**

Will not occur.

**Section 11 - Toxicological Information****Acute Toxicity****A: General Product Information**

Dust from this product is a mechanical irritant, which means that it may cause temporary irritation or scratchiness of the throat, and/or itching of the eyes and skin.

**B: Component Analysis - LD50/LC50****Antimony trioxide (1309-64-4)**

Oral LD50 Rat: >34600 mg/kg

**Carcinogenicity****A: General Product Information**

No data for this product as a whole.

**B: Component Carcinogenicity****Fiber Glass Wool (65997-17-3)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Group 3 - Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibres), Monograph 43 [1988])

**Fiber Glass Wool (65997-17-3)**

ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans

NTP: Reasonably Anticipated To Be A Carcinogen (respirable size)

IARC: Group 3 - Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibres), Monograph 43 [1988])

**Antimony trioxide (1309-64-4)**

ACGIH: A2 - Suspected Human Carcinogen (production)

IARC: Group 2B - Possibly Carcinogenic to Humans (IARC Monograph 47 [1989])

**Chronic Toxicity**

Fiber Glass Wool: In October 2001, IARC classified fiber glass wool as Group 3, "not classifiable as to its carcinogenicity to humans." The 2001 decision was based on current human and animal research that shows no association between inhalation exposure to dust from fiber glass wool and the development of respiratory disease. This is a reversal of the IARC finding in 1987 of a Group 2B designation (possibly carcinogenic to humans) based on earlier studies in which animals were injected with large quantities of fiber glass. NTP and ACGIH have not yet reviewed the IARC reclassification or the most current fiber glass health research; at this time, both agencies continue to classify glass wool based on the earlier animal injection studies.

**Section 12 - Ecological Information****Ecotoxicity****A: General Product Information**

No data available for this product.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity****Antimony trioxide (1309-64-4)**

96 Hr LC50 Pimephales promelas: 833.0 mg/L; 96 Hr LC50 Lepomis macrochirus: 530 mg/L; 96 Hr LC50 Brachydanio rerio: >1000 mg/L [static]

72 Hr EC50 Selenastrum capricornutum: 67 mg/L

7 Hr EC50 Pseudomonas putida: >3.5 mg/L

48 Hr EC50 Daphnia magna: >1000 mg/L

**Section 13 - Disposal Considerations****US EPA Waste Number & Descriptions****A: General Product Information**

This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the EPA.

**B: Component Waste Numbers**

No EPA Waste Numbers are applicable for this product's components.

**Disposal Instructions**

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

**Section 14 - Transportation Information**

**Shipping Name:** This product is not classified as a hazardous material for transport.

**Section 15 - Regulatory Information****US Federal Regulations****A: General Product Information**

SARA 311/312: This product is not classified as hazardous under SARA 311/312.

**B: Component Analysis**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

**Aluminum (in facing) (7429-90-5)**

SARA 313: 1.0 % de minimis concentration (dust or fume only)

**Antimony trioxide (1309-64-4)**

CERCLA: 1000 lb final RQ; 454 kg final RQ

**State Regulations****A: General Product Information**

Other state regulations may apply. Check individual state requirements.

**B: Component Analysis - State**

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

Component	CAS #	CA	FL	MA	MN	NJ	PA
Fiber Glass Wool (related to Mineral wool fiber)	65997-17-3	Yes <sup>1</sup>	No	Yes <sup>1</sup>	Yes	No	Yes <sup>1</sup>
Aluminum (in facing)	7429-90-5	Yes	No	Yes	Yes	Yes	Yes
Antimony trioxide	1309-64-4	Yes	No	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):  
**WARNING!** This product contains a chemical known to the state of California to cause cancer.

Component	CAS #
Fiber Glass Wool (related to Mineral wool fiber)	65997-17-3
Antimony trioxide	1309-64-4

**A: TSCA Status**

This product and its components are listed on the TSCA 8(b) inventory.

None of the components listed in this product are listed on the TSCA Export Notification 12(b) list.

**International Regulations****A: General Product Information**

These products are considered articles under both U.S. and international product regulations and as such, the products and their ingredients do not require registration or notification on the various country-specific inventories.

**B: Component Analysis - WHMIS IDL**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Aluminum (in facing)	7429-90-5	1 %

**Section 16 - Other Information****Other Information**

Prepared for:  
Johns Manville  
Insulation Systems  
P. O. Box 5108  
Denver, CO USA 80217-5108

Prepared by:  
Johns Manville Technical Center  
P.O. Box 625005  
Littleton, CO USA 80162-5005

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.

Date	MSDS #	Reason
01/30/02	1200-1.0000	new product; new MSDS
04/14/03	1200-1.0001	Minor edits.
07/01/03	1200-1.0002	Sect. 10: delete hydrogen cyanide; not a product of decomposition or burning.
04/28/04	1200-1.0003	Sect. 1 edit material name, add EnviroAire XG to trade names, edit composition. Regulatory review. Minor edits.
06/07/04	1200-1.0004	Sect. 1 & 16, changed CID to PM
12/01/05	1200-1.0005	Regulatory update. Removed formaldehyde free from material name and Microlite Duct Wrap. Minor edits in Section 8 Exposure, Section 11 LD50, & Section 15 State, SARA, & CERCLA.
02/23/07	1200-1.0006	Removed XG from EnviroAire trade name.

This is the end of MSDS # 1200

## Section 1 - Product and Company Identification

**Hazard Label** WARNING label

### Company Information

Johns Manville  
 Insulation Systems  
 P.O. Box 5108  
 Denver, CO 80127 USA

Telephone: 303-978-2000 8:00AM-5:00PM M-F  
 Internet Address: <http://www.jm.com>  
 Emergency: 800-424-9300 (Chemtrec, In English)

**Trade Names:** Micro-Lok® Pipe Insulation

### General Comments:

This product is manufactured in Canada. For Micro-Lok® Pipe Insulation manufactured in the U.S., see JM SDS ID # 1009 available on [www.jm.com](http://www.jm.com).

## Section 2 - Hazards Identification

### Emergency Overview

Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation and/or congestion--remove individual to fresh air.

In high temperature applications, treatment, curing, or in geographic areas of high heat and humidity, this product may release gases irritating to the eyes, nose and throat. In confined or poorly ventilated areas, use air supplied respirators during the first heat-up cycles.

### Inhalation

Temporary mechanical irritation may occur upon exposure to dust or fibers released from cutting this product.

Irritation of the upper respiratory tract, coughing, and congestion may occur in extreme exposures. Severe irritation of the mouth, nose, and throat, as well as signs of central nervous system depression (drowsiness, dizziness, headache), may occur upon inhalation of vapors or gases.

### Skin

Temporary irritation (itching) or redness may occur.

### Ingestion

This product is not intended to be ingested (eaten). If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

### Eyes

Temporary irritation (itching) or redness may occur.

### Ears

Temporary irritation (itching) or redness may occur.

### Primary Routes of Entry (Exposure)

Eyes, skin, inhalation (breathing dust and fibers) and ingestion.

### Target Organs

Nose (nasal passages), throat, lungs, skin, eyes

### Medical Conditions Aggravated by Exposure

Pre-existing chronic respiratory, skin, or eye diseases or conditions.

## Section 3 - Composition/Information on Ingredients

CAS #	Component	Percent
65997-17-3	Fiber Glass Wool	65-96
Proprietary	Urea extended phenol-formaldehyde polymer	4-15
Not Available	Acrylic-based polymer (present in top and edge coating)	<5
50-00-0	Formaldehyde	<1
1309-64-4	Antimony trioxide (present in top and edge coating)	<1
1163-19-5	Decabromodiphenyl oxide	<1
7440-38-2	Arsenic	0.18*

### Component Information

Formaldehyde may be released by partial hydrolysis of the urea formaldehyde polymer.

**General Product Description**

Fibers assembled into tubes, blankets or boards. The products may be faced with kraft, aluminum foil, vinyl, glass/polyester or combination thereof. Some products may have a coating.

**Section 4 - First Aid Measures****First Aid: Inhalation**

If dust is inhaled in excess of exposure limits referenced in section 8 of this safety data sheet, remove individual to fresh air. Drink water to clear throat, and blow nose to remove dust.

**First Aid: Skin**

Wash gently with soap and water to remove dust and fibers. Alternatively, fibers can be removed from the skin by use of ordinary masking or wrapping tape. Should irritation persist, seek medical attention.

**First Aid: Ingestion**

Rinse mouth with water to remove dust and fibers and drink plenty of water to help reduce irritation. If irritation persists, seek medical attention.

**First Aid: Eyes**

Do not rub or scratch eyes. Dust particles may cause the eye to be scratched. Flush eyes with large amounts of water until irritation subsides. If irritation persists, seek medical attention.

**First Aid: Ears**

Wash exposed skin with soap and water. If irritation develops in the inner ear, seek medical attention.

**First Aid: Notes to Physician**

Dust from the product may cause mechanical irritation of the eyes, skin, and upper respiratory tract. Treat symptomatically.

**Section 5 - Fire Fighting Measures**

**Flash Point:** Not applicable

**Upper Flammable Limit (UFL):** Not applicable

**Auto Ignition:** Not determined

**Rate of Burning:** Not determined

**General Fire Hazards**

There is no potential for spontaneous fire or explosion. Inorganic glass fibers are naturally non-combustible and non-flammable.

**Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>), water, water fog, dry chemical.

**Fire Fighting Equipment/Instructions**

No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

**Section 6 - Accidental Release Measures****Clean-Up Procedures**

Pick up large pieces. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation. These procedures will help to minimize potential exposures.

**Section 7 - Handling and Storage****Handling Procedures**

Use protective equipment as described in Section 8 of this safety data sheet when handling uncontained material. Handle in accordance with good industrial hygiene and safety practices.

**Storage Procedures**

Warehouse storage should be in accordance with package directions, if any. Material should be kept clean, dry, and in original packaging.

**Section 8 - Exposure Controls / Personal Protection**

The Occupational Safety and Health Administration (OSHA) has not adopted specific occupational exposure standards for fiber glass. Fiber glass is treated as a nuisance dust and is regulated by OSHA as a particulate not otherwise regulated (total dust) shown in CFR 1910.1000 Table Z-3.

Respirable fraction 5 mg/m<sup>3</sup>

Total dust 15 mg/m<sup>3</sup>

JM has adopted the fiber glass industry voluntary Product Stewardship Program (PSP), formerly the NAIMA-OSHA Health and Safety Partnership Program (HSPP). Under the PSP, JM recommends that exposures be limited to the voluntary concentration of 1 f/cc TWA for fibers longer than 5 microns with a diameter less than 3 microns. This will help minimize potential irritation effects. The PSP also includes the PPE recommendations described below.

**Formaldehyde (50-00-0)**

OSHA: 0.75 ppm TWA  
0.5 ppm Action Level; 0.75 ppm TWA; 2 ppm STEL (Irritant and potential cancer hazard - see 29 CFR 1910.1048)  
3 ppm TWA (unless specified in 1910.1048)  
ACGIH: 0.3 ppm Ceiling

**Arsenic (7440-38-2)**

OSHA: 0.5 mg/m3 TWA  
ACGIH: 0.01 mg/m3 TWA

**PERSONAL PROTECTIVE EQUIPMENT****Personal Protective Equipment: Eyes/Face**

Safety glasses with side shields are recommended to keep dust out of the eyes.

**Personal Protective Equipment: Ears**

Use ear protection (earplugs, hood, or earmuffs) to prevent airborne dust or fibers from entering the ear, if necessary.

**Personal Protective Equipment: Skin**

Leather or cotton gloves should be worn to protect against mechanical abrasion. See also Personal Protective Equipment: General, below.

**Personal Protective Equipment: Respiratory**

A NIOSH-approved respirator should be used if ventilation is unavailable, or is inadequate for keeping levels below the applicable exposure limits referenced in Section 8 of this SDS.

**Ventilation**

In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting, milling or other processing to remove airborne dust and fibers.

**Personal Protective Equipment: General**

Wear a cap, a loose-fitting, long-sleeved shirt and long pants to protect skin from irritation. Exposed skin areas should be washed with soap and water after handling or working with fiber glass. Clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiber glass being transferred to other clothing.

**Section 9 - Physical & Chemical Properties**

<b>Appearance:</b>	Yellow or black fibers assembled into tubes, blankets or boards.	<b>Odor:</b>	Faint odor
<b>Physical State:</b>	Solid	<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable	<b>Vapor Density:</b>	Not applicable
<b>Boiling Point:</b>	Not applicable	<b>Melting Point:</b>	>1399°C (>2550°F)
<b>Solubility (H<sub>2</sub>O):</b>	Insoluble	<b>Specific Gravity:</b>	Variable
<b>Percent Volatile:</b>	No data		

**Section 10 - Stability & Reactivity Information****Stability**

These products are not reactive.

**Hazardous Decomposition**

May form carbon dioxide and carbon monoxide.

**Hazardous Polymerization**

Will not occur.



**Section 11 - Toxicological Information****Acute Toxicity****A: General Product Information**

If dust evolves from this product during use it may cause temporary mechanical irritation or scratchiness of the throat and/or itching of the eyes and skin.

Exposure to formaldehyde may cause eye and upper respiratory irritation, and possible respiratory or skin sensitization (allergy). If sensitization occurs, subsequent exposures to formaldehyde may worsen asthma or other respiratory problems, and cause allergic-type reactions.

**B: Component Analysis - LD50/LC50****Urea extended phenol-formaldehyde polymer (Proprietary)**

Oral LD50 Rat: 7 g/kg

**Decabromodiphenyl oxide (1163-19-5)**

Inhalation LC50 Rat: >48.2 mg/L/1H; Oral LD50 Rat:>2000 mg/kg; Dermal LD50 Rabbit:>2000 mg/kg

**Formaldehyde (50-00-0)**

Inhalation LC50 Rat: 0.578 mg/L/4H; Oral LD50 Rat:500 mg/kg

**Antimony trioxide (present in top and edge coating) (1309-64-4)**

Oral LD50 Rat: >34600 mg/kg

**Arsenic (7440-38-2)**

Oral LD50 Rat: 763 mg/kg

**Carcinogenicity****A: General Product Information**

Exposure to formaldehyde has been associated with the development of nasopharyngeal cancer in laboratory animals and humans. Formaldehyde has been classified as a known human carcinogen, Group 1, by the International Agency for Research on Cancer (IARC). The US National Toxicology Program (NTP) considers formaldehyde as known to be a human carcinogen. OSHA specifically regulates formaldehyde under 29 CFR 1910.1048.

**B: Component Carcinogenicity****Fiber Glass Wool (65997-17-3)**

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed under Synthetic Vitreous Fibers)

NTP: Reasonably Anticipated To Be A Human Carcinogen (respirable size) (Possible Select Carcinogen)

IARC: Group 3 - Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibres), Monograph 43 [1988])

**Decabromodiphenyl oxide (1163-19-5)**

IARC: Group 3 - Not Classifiable (IARC Monograph 71 [1999], Monograph 48 [1990])

**Formaldehyde (50-00-0)**

ACGIH: A2 - Suspected Human Carcinogen

OSHA: 0.5 ppm Action Level; 0.75 ppm TWA; 2 ppm STEL (Irritant and potential cancer hazard - see 29 CFR 1910.1048)

NTP: Known to be a human carcinogen

IARC: Group 1 - Known Human Carcinogen

**Antimony trioxide (present in top and edge coating) (1309-64-4)**

ACGIH: A2 - Suspected Human Carcinogen (production)

IARC: Group 2B - Possibly Carcinogenic to Humans (IARC Monograph 47 [1989])

**Arsenic (7440-38-2)**

ACGIH: A1 - Confirmed Human Carcinogen

IARC: Group 1 - Known Human Carcinogen (IARC Monograph 84 [2004] (in drinking water), Supplement 7 [1987], Monograph 23 [1980])

**Chronic Toxicity**

The U.S. Department of Health and Human Services, National Toxicology Program (NTP 1998, 2000, 2002) classified glass wool (respirable size) as reasonably anticipated to be a human carcinogen, based on sufficient evidence of carcinogenicity in animals. This assessment was originally prepared in 1993-1994 for the 7th Report on Carcinogens (NTP 1994), but has not been updated since then in the 8th, 9th, or 10th Reports on Carcinogens (NTP 1998, 2000, 2002).

Prolonged, excessive exposures to vapors may cause nervous system, kidney and liver damage.

**Section 12 - Ecological Information****Ecotoxicity****A: General Product Information**

No data available for this product.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity****Decabromodiphenyl oxide (1163-19-5)**

72 Hr EC50 *Skeletonema costatum*: >1 mg/L

**Formaldehyde (50-00-0)**

96 Hr LC50 *Brachydanio rerio*: 41 mg/L [static]

96 Hr EC50 water flea: 20 mg/L; 48 Hr EC50 *Daphnia magna*: 2 mg/L

**Antimony trioxide (present in top and edge coating) (1309-64-4)**

96 Hr LC50 *Pimephales promelas*: 833.0 mg/L; 96 Hr LC50 *Lepomis macrochirus*: 530 mg/L; 96 Hr LC50 *Brachydanio rerio*: >1000 mg/L [static]

72 Hr EC50 *Selenastrum capricornutum*: 67 mg/L

48 Hr EC50 *Daphnia magna*: >1000 mg/L

**Section 13 - Disposal Considerations****US EPA Waste Number & Descriptions****General Product Information**

This product is not expected to be a hazardous waste when it is disposed of according to the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Product characterization after use is recommended to ensure proper disposal under federal and/or state requirements.

**Disposal Instructions**

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

**Section 14 - Transport Information****International Transport Regulations**

These products are not classified as dangerous goods according to international transport regulations.

**Section 15 - Regulatory Information****US Federal Regulations****A: General Product Information**

SARA 311/312: This product is not classified as hazardous under SARA 311/312.

**B: Component Analysis**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

**Formaldehyde (50-00-0)**

SARA 302: 500 lb TPQ

SARA 313: 0.1 % de minimis concentration

CERCLA: 100 lb final RQ; 45.4 kg final RQ

**Antimony trioxide (present in top and edge coating) (1309-64-4)**

CERCLA: 1000 lb final RQ; 454 kg final RQ

**Arsenic (7440-38-2)**

SARA 313: 0.1 % de minimis concentration

CERCLA: 1 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers); 0.454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal release is larger than 100 micrometers)

**State Regulations****A: General Product Information**

The glass fibers in this product are not known to be regulated.

Other state regulations may apply. Check individual state requirements.

**B: Component Analysis - State**

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

Component	CAS #	CA	FL	MA	MN	NJ	PA
Decabromodiphenyl oxide	1163-19-5	No	No	Yes	Yes	Yes	Yes
Formaldehyde	50-00-0	Yes	No	Yes	Yes	Yes	Yes
Antimony trioxide (present in top and edge coating)	1309-64-4	Yes	No	Yes	Yes	Yes	Yes
Arsenic	7440-38-2	Yes	No	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):  
WARNING! This product contains a chemical known to the state of California to cause cancer.

Component	CAS #
Fiber Glass Wool (¹related to Mineral wool fiber) (²related to Fibrous glass)	65997-17-3
Decabromodiphenyl oxide	1163-19-5
Formaldehyde	50-00-0
Antimony trioxide (present in top and edge coating)	1309-64-4

**TSCA Status**

This product and its components are listed on the TSCA 8(b) inventory.

**International Regulations****A: General Product Information**

These products are considered articles under both U.S. and international product regulations and as such, these products do not require registration or notification on the various country-specific inventories.

**B: Component Analysis - WHMIS IDL**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Fiber Glass Wool	65997-17-3	1 % (related to Fibrous glass)
Formaldehyde	50-00-0	0.1 %
Arsenic	7440-38-2	0.1 %

**WHMIS Classification**

Controlled Product Classification: D2A, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations. This SDS contains all the information required by the Controlled Products Regulations.

**Section 16 - Other Information****Other Information**Prepared for:  
Johns Manville  
Insulation Systems  
P. O. Box 5108  
Denver, CO USA 80217-5108

Prepared by:  
Johns Manville Technical Center  
P.O. Box 625005  
Littleton, CO USA 80162-5005

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.

<b>Date</b>	<b>MSDS #</b>	<b>Reason</b>
11/19/08	1803-1.0000	New MSDS for Canadian product containing arsenic in glass.
09/07/2011	1803-1.01	Regulatory update.
09/08/2011	1803-1.02	Correction sect. 8 respiratory

End of Sheet 1803

COMPANY IDENTITY: Packaging Service Co., Inc. SDS DATE: 06/01/2013  
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 SDS NUMBER: CL.LVMSSCB For sale/use in "CARB" only

## SAFETY DATA SHEET

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.

THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)

IMPORTANT: Read this SDS before handling & disposing of this product.

Pass this information on to employees, customers, & users of this product.

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: CROWN LOW VOC MINERAL SPIRITS SUBSTITUTE (CARB)  
 COMPANY IDENTITY: Packaging Service Co., Inc.  
 COMPANY ADDRESS: 1904 Mykawa Road / P O Box 875  
 COMPANY CITY: Pearland, TX 77581  
 COMPANY PHONE: 1-281-485-1458  
 EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)  
 CANUTEC: 1-613-996-6666 (CANADA)

### SECTION 2. HAZARDS IDENTIFICATION

#### WARNING!

#### HAZARD STATEMENTS:

H100s = General, H200s = Physical, H300s = Health, H400s = Environmental

H304 May be fatal if swallowed and enters airways.  
 H315 Causes skin irritation.  
 H320 Causes eye irritation.  
 H335 May cause respiratory irritation.

#### PRECAUTIONARY STATEMENTS:

P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal

P243 Take precautionary measures against static discharge.  
 P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
 P262 Do not get in eyes, on skin, or on clothing.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.



### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
Severely Hydrotreated			
Light Distillate	64742-47-8	265-200-4	85-95
Chlorobenzotrifluorides	98-56-6	-	0-10
Nonhazardous Nonvolatiles	Mixture	Mixture	0- 5

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

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#### SECTION 4. 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.

##### EYE CONTACT:

If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. "Roll" eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

##### SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

##### INHALATION:

After high vapor exposure, remove to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. Breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention. 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.

##### SWALLOWING:

If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

##### NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

#### SECTION 5. FIRE FIGHTING MEASURES

##### FIRE & EXPLOSION PREVENTIVE MEASURES

NO open flames. Above flash point, use a closed system, ventilation, explosion-proof electrical equipment, lighting.

##### EXTINGUISHING MEDIA

Use dry powder, AFFF, carbon dioxide.

##### SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

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## SECTION 5. FIRE FIGHTING MEASURES (CONTINUED)

### UNUSUAL EXPLOSION AND FIRE PROCEDURES

#### COMBUSTIBLE!

Isolate from oxidizers, heat, & open flame.  
Closed containers may explode if exposed to extreme heat.  
Applying to hot surfaces requires special precautions.  
Empty container very hazardous! Continue all label precautions!

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

### PERSONAL PROTECTIVE EQUIPMENT

The proper personal protective equipment for incidental releases (such as: 1 Liter of the product released in a well-ventilated area), use impermeable gloves (triple-gloves (rubber gloves and nitrile gloves, over latex gloves), goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

### ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

### CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with polypads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material, (acid with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13 - Disposal Considerations).

## SECTION 7. HANDLING AND STORAGE

### HANDLING

Isolate from oxidizers, heat, & open flame. Use only with adequate ventilation. Avoid breathing of vapor or spray mist. Do not get in eyes, on skin or clothing. Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse. Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, braze, or weld. Empty container very hazardous! Continue all label precautions! Drinking alcohol shortly before, during or after use can cause unwanted effects.

### STORAGE

Isolate from strong oxidants. Contact with hot surfaces can produce toxic gases. Keep container tightly closed & upright when not in use to prevent leakage.

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## SECTION 7. HANDLING AND STORAGE (CONTINUED)

### NONBULK: CONTAINERS:

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Empty containers should be handled with care. Never store food, feed, or drinking water in containers which held this product.

### BULK CONTAINERS:

All tanks and pipelines which contain this material must be labeled. Perform routine maintenance on tanks or pipelines which contain this product. Report all leaks immediately to the proper personnel.

### TANK CAR SHIPMENTS:

Tank cars carrying this product should be loaded and unloaded in strict accordance with tank-car manufacturer's recommendation and all established on-site safety procedures. Appropriate personal protective equipment must be used (see Section 8, Engineering Controls and Personal Protective Equipment.). All loading and unloading equipment must be inspected, prior to each use. Loading and unloading operations must be attended, at all times. Tank cars must be level, brakes must be set or wheels must be locked or blocked prior to loading or unloading. Tank car (for loading) or storage tanks (for unloading) must be verified to be correct for receiving this product and be properly prepared, prior to starting the transfer operations. Hoses must be verified to be in the correct positions, before starting transfer operations. A sample (if required) must be taken and verified (if required) prior to starting transfer operations. All lines must be blown-down and purged before disconnecting them from the tank car or vessel.

### PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Collect all rinsates and dispose of according to applicable Federal, State, Provincial, or local procedures.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Severely Hydrotreated				
Light Distillates	64742-47-8	265-200-4	200 mg/m3	200 mg/m3
Chlorobenzotrifluorides	98-56-6	-	None Known	None Known
Nonhazardous Nonvolatiles	Mixture	Mixture	None Known	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

### RESPIRATORY EXPOSURE CONTROLS

Seek professional advice prior to respirator selection and use. Maintain airborne contaminant concentrations below exposure limits given above. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, European Standard EN 149, or applicable State regulations. If adequate ventilation is not available or there is potential for airborne exposure above the exposure limits, a respirator may be worn up to the respirator exposure limitations, check with respirator equipment manufacturer's recommendations/limitations. For a higher level of protection, use positive pressure supplied air respiration protection or Self-Contained Breathing Apparatus or if oxygen levels are below 19.5% or are unknown.

### EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS

Positive pressure, full-face piece Self-Contained Breathing Apparatus; or positive pressure, full-face piece Self-Contained Breathing Apparatus with an auxilliary positive pressure Self-Contained Breathing Apparatus.



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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

### VENTILATION

LOCAL EXHAUST: Necessary MECHANICAL (GENERAL): Necessary  
 SPECIAL: None OTHER: None  
 Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

### EYE PROTECTION:

Splash goggles or safety glasses. Face-shields are recommended when the operation can generate splashes, sprays or mists.

### HAND PROTECTION:

Wear appropriate impervious gloves for routine industrial use. Use impervious gloves for spill response, as stated in Section 6 of this SDS (Accidental Release Measures).

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.

### BODY PROTECTION:

Use body protection appropriate for task. Cover-all, rubber aprons, or chemical protective clothing made from impervious materials are generally acceptable, depending on the task.

### WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at end of each shift & before eating, smoking or using the toilet. Remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

## SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	Liquid, Water-White
ODOR:	Chlorinated
ODOR THRESHOLD:	Not Available
pH (Neutrality):	Not Applicable
MELTING POINT/FREEZING POINT:	Not Available
BOILING RANGE (IBP, 50%, Dry Point):	153 265 328°C/309 509 624°F(*=End Point)
FLASH POINT (TEST METHOD):	86 C / 187 F (TCC)
EVAPORATION RATE (n-BUTYL ACETATE=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Class IIIA
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	0.95
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20 C	0.330
VAPOR DENSITY (air=1):	6.1
GRAVITY @ 68/68 F / 20/20 C:	
SPECIFIC GRAVITY (Water=1):	0.847
POUNDS/GALLON:	7.056
WATER SOLUBILITY:	Negligible
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	260 C / 500 F
DECOMPOSITION TEMPERATURE:	Not Available
VOCs (>0.044 Lbs/Sq In) :	0.0 Vol% / 0.0 g/L / 0.000 Lbs/Gal
TOTAL VOC'S (TVOC)*:	3.8 Vol% / 50.4 g/L / 0.4 Lbs/Gal
NONEXEMPT VOC'S (CVOC)*:	0.4 Vol% / 4.0 g/L / 0.05 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	0.0 Wt% / 0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C)	0.192

\* Using CARB (California Air Resources Board Rules).

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## SECTION 10. STABILITY & REACTIVITY

### STABILITY

Stable under normal conditions.

### CONDITIONS TO AVOID

Isolate from oxidizers, heat, & open flame.

### MATERIALS TO AVOID

Reacts with strong oxidants, causing fire & explosion hazard.

### HAZARDOUS DECOMPOSITION PRODUCTS

Carbon Monoxide, Carbon Dioxide,  
 Hydrogen Chloride, Phosgene from burning.

### HAZARDOUS POLYMERIZATION

Will not occur.

## SECTION 11. TOXICOLOGICAL INFORMATION

### ACUTE HAZARDS

#### EYE & SKIN CONTACT:

Primary irritation to skin, defatting, dermatitis.  
 Primary irritation to eyes, redness, tearing, blurred vision.  
 Liquid can cause eye irritation. Wash thoroughly after handling.

#### INHALATION:

Anesthetic. Irritates respiratory tract. Acute overexposure  
 can cause serious nervous system depression which can cause death. Vapor harmful.  
 Concentrated vapor in confined areas may be fatal.

#### SWALLOWING:

Harmful or fatal if swallowed.  
 Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.  
 The symptoms of chemical pneumonitis may not show up for a few days.

### SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

#### CONDITIONS AGGRAVATED

Persons with severe skin, liver or kidney problems should avoid use.

### CHRONIC HAZARDS

#### CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:

Leukemia been reported in humans from Benzene.  
 This product contains less than 1 ppm of Benzene.  
 Not considered hazardous in such low concentrations.  
 Absorption thru skin may be harmful.

### MAMMALIAN TOXICITY INFORMATION

MATERIAL	CAS#	EINECS#	LOWEST KNOWN LETHAL DOSE DATA LOWEST KNOWN LD50 (ORAL)
Chlorobenzotrifluorides	98-56-6	-	13000.0 mg/kg(Rats)

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## SECTION 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

### EFFECT OF MATERIAL ON PLANTS AND ANIMALS:

This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

### EFFECT OF MATERIAL ON AQUATIC LIFE:

No aquatic environmental information is available on this product.  
Environmental effects of the substance have not been investigated adequately.

### MOBILITY IN SOIL

This material is a mobile liquid.

### DEGRADABILITY

This product is partially biodegradable.

### ACCUMULATION

Bioaccumulation of this product has not been determined.

## SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.

**ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES.**

## SECTION 14. TRANSPORT INFORMATION

DOT/TDG SHIP NAME: BULK: NA1993, Combustible Liquid, n.o.s.  
(Contains: Chlorobenzotrifluorides), PG-III  
Combustible liquid. Not DOT regulated on trucks in containers of < 119 gallons.  
DRUM LABEL: None (Combustible Liquid)  
IATA / ICAO: Not Regulated  
IMO / IMDG: Not Regulated  
EMERGENCY RESPONSE GUIDEBOOK NUMBER: 128

## SECTION 15. REGULATORY INFORMATION

### EPA REGULATION:

SARA SECTION 311/312 HAZARDS: Acute Health, Fire

All components of this product are on the TSCA list.

This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

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## SECTION 15. REGULATORY INFORMATION (CONTINUED)

### STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):  
This product contains no chemicals known to the State of California  
to cause cancer or reproductive toxicity.

### INTERNATIONAL REGULATIONS

The components of this product are listed on the chemical inventories of the  
following countries:  
Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS)  
Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC),  
Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

### CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

B3: Combustible Liquid.  
D2B: Irritating to skin / eyes.

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

## SECTION 16. OTHER INFORMATION

### HAZARD RATINGS:

HEALTH (NFPA): 2, HEALTH (HMIS): 1, FLAMMABILITY: 2, PHYSICAL HAZARD: 1  
(Personal Protection Rating to be supplied by user based on use conditions.)  
This information is intended solely for the use of individuals  
trained in the NFPA & HMIS hazard rating systems.

### EMPLOYEE TRAINING

See Section 2 for Risk & Safety Statements. Employees should be made aware  
of all hazards of this material (as stated in this SDS) before handling it.

## NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness  
for a specific use, with respect to the product or the information provided herein,  
except for conformation to contracted specifications. All information appearing herein  
is based upon data obtained from manufacturers and/or recognized technical sources.  
While the information is believed to be accurate, we make no representations as to its  
accuracy or sufficiency.

Conditions of use are beyond our control, and therefore users are responsible for  
verifying the data under their own operating conditions to determine whether the product  
is suitable for their particular purposes and they assume all risks of their handling,  
and disposal of the product. Users also assume all risks in regards to the publication  
or use of, or reliance upon information contained herein.

This information relates only to the product designated herein, and does not relate to  
its use in combination with any other material or process.

Unless updated, the Safety Data Sheet is valid until 06/01/2016.

#### 1. Identification:

- 1.1 Product Generic Name: Mineral Wool Insulation
- 1.2 Product Use: Commercial, Industrial and Residential Insulation
- 1.3 Products:  
CavityRock®, ConRock®, CurtainRock®, Roxul DrainBoard®, Enerwrap®, Flexibatt®, ComfortBatt™, RHM™, RHT®, AFB®, RoxulPlus®, RW®, Roxul Safe®, Roxul Safe'n'Sound™, Techton® 1200, Techton® 1200 Marine, SturdiRock®, Roxul FireWall™, RockBoard™, TopRock®, MonoBoard™, FabRock™
- 1.4 Company Address:  
Roxul Inc.  
551 Harrop Drive  
Milton, Ontario  
Canada  
L9T 3H3
- 1.5 Web Site: [www.roxul.com](http://www.roxul.com)
- 1.6 If further information is required, please call or fax Roxul Inc.  
Telephone: 1-800-265-6878 or 905-878-8474 Fax: 905-878-8077

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#### 2. Information on Ingredients:

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>%</u>
Mineral Fiber	RN 65997-17-3	94-99
Cured Urea Extended Phenolic Formaldehyde Binder	25104-55-6	1-6

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#### 3. Hazards Identification:

- 3.1 Appearance and Odor: Grey, green fibrous batt or board.
- 3.2 Emergency Overview:  
Acrid smoke may be generated during a fire.  
Exposure to dust may be irritating to the eyes, nose and throat.
- 3.3 Potential Health Effects:
- 3.3.1 Inhalation: Temporary mechanical irritation of the upper respiratory tract (scratchy throat, coughing, congestion) may result from exposures to dusts and fibers in excess of applicable exposure limits.
- 3.3.2 Skin Contact: Dusts and fibers may cause temporary mechanical irritation (itching) or redness to the skin.
- 3.3.3 Eye Contact: Dusts and fibers may cause temporary mechanical irritation (itching) or redness to the eyes.
- 3.3.4 Ingestion: Ingestion of this product is unlikely and not intended under normal conditions of use. Ingestion of this product may cause gastrointestinal irritation.
- 3.3.5 Existing Medical Conditions: Pre-existing chronic eye, skin and respiratory conditions may temporarily worsen due to exposure to dusts and fibers.

#### 4. First-Aid Measures:

- 4.1 Inhalation: If irritation occurs, remove the affected person to fresh air. Drink water, and blow nose, to clear dusts and fibers from throat and nose. If irritation persists, consult a physician.
- 4.2 Skin: If irritation occurs, do not rub or scratch. Rinse under running water prior to washing with mild soap and water. Use a washcloth to help remove fibers. If irritation persists, consult a physician.
- 4.3 Eyes: If irritation occurs, flush eyes with plenty of water for at least 15 minutes. Do not rub the eyes. Consult a physician if irritation persists.
- 4.4 Ingestion: Ingestion of this product is unlikely and not intended under normal conditions of use. If it does occur, rinse mouth with plenty of water to help remove dust and fibers, and drink plenty of water to help reduce potential gastrointestinal irritation. Do not induce vomiting unless directed to do so by a physician.

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#### 5. Fire-Fighting Measures:

The products are non-combustible and do not pose a fire hazard. However, packaging material may burn.

- 5.1 Suitable extinguishing media: Water, foam, carbon dioxide or dry powder
- 5.2 Extinguishing media which must not be used for safety reasons: None
- 5.3 Combustion products: Carbon dioxide, carbon monoxide and trace gases
- 5.4 Special protective equipment for fire-fighters: Observe normal fire fighting procedures
- 5.5 Flash point: None      Flash Point Method Used: Not Applicable
- Upper Flammable Limit (UFL): Not Applicable      Lower Flammable Limit: Not Applicable
- Autoignition: Not Applicable      Explosive Properties: Not Applicable

---

#### 6. Accidental Release Measures:

- 6.1 Containment Procedures: Pick up large pieces and scoop up dusts and fibers after they have settled out of air. These materials will disperse and settle along the bottom of waterways and ponds. It cannot easily be removed once it is waterborne, but is considered non-hazardous in water.
- 6.2 Cleanup Procedures: Use OSHA-recommended work practices and protective equipment as described in Section 8 of this Material Safety Data Sheet. Avoid generating airborne dusts and fibers during cleanup. Do not use compressed air. Vacuum dusts and fibers. Place material in an appropriate container for disposal as non-hazardous waste.
- 6.3 Response Procedures: Isolate area. Keep unnecessary personnel away. If dry methods or compressed air are used to collect dusts and fibers, all personnel in the area should wear OSHA-approved protective equipment (see Section 8 of this Material Safety Data Sheet).
-

## 7. Handling and Storage:

### 7.1 General Precautions:

- Utilize OSHA-recommended work practices and protective equipment when using the products (see Section 8 of this Material Safety Data Sheet).

### 7.2 Handling:

- Unpack material at application site to avoid unnecessary handling of product.
- Keep work areas clean. Avoid unnecessary handling of scrap material and debris by placing such materials in suitable containers, which should be kept as close to the work area as possible.
- Ensure good ventilation. Local exhaust ventilation may be required if the method of use produces dust levels which exceed applicable exposure limits (see Section 8 of this Material Safety Data Sheet).
- Avoid excessive eye and skin contact with dusts and fibers.
- Use recommended cleanup procedures to avoid buildup of dusts and fibers in the work area.

### 7.3 Storage:

- Keep material in original packaging until it is to be used.
- Store material to protect against adverse conditions including precipitation.

## 8. Exposure Controls/Personal Protection:

### 8.1 Exposure Guidelines:

8.1.1 **General Product Information:** Follow all applicable exposure limits. Local regulations may apply. Roxul recommends that users of the products adhere to the OSHA-recommended PEL of 1 f/cc TWA (fibers longer than 5 µm with diameters less than 3 µm). This recommended PEL, together with recommended work practices and personal protective equipment, were adopted in a Health and Safety Partnership Program (HSPP) agreement in 1999 between OSHA and the North American Insulation Manufacturers Association (NAIMA), of which Roxul is a member. Adherence to the OSHA-recommended PEL, work practices and protective equipment in the HSPP is expected to provide appropriate protection against all inhalation-related health risks that may be associated with exposures to mineral wool fibers (ACGIH 1997; NAIMA 1999; OSHA 1999; National Research Council 2000, IARC 2001), and to minimize eye and skin irritation.

### 8.1.2 Component Exposure Limits:

Source	Legal or Recommended Exposure Limit	Exposure
OSHA	1 f/cc TWA (recommended)	Synthetic Vitreous Fibers, > 5 µm length, < 3 µm diameter
ACGIH	1 f/cc TWA (threshold limit value – TLV)	Synthetic Vitreous Fibers, > 5 µm length, < 3 µm diameter
OSHA	15 mg/m <sup>3</sup> TWA-PEL (total particulate) 5 mg/m <sup>3</sup> TWA-PEL (respirable particulate)	Inert dust and particulates not otherwise regulated
ACGIH	10 mg/m <sup>3</sup> TWA-TLV (inhalable particulate) 3 mg/m <sup>3</sup> TWA-TLV (respirable particulate)	Particulates not otherwise classified, containing no asbestos and <1% crystalline silica

- 8.2 Equipment and Work Practices: Follow OSHA-recommended equipment and work practices. A complete copy of these practices can be obtained from Roxul Inc. (see Section 1 of this Material Safety Data Sheet), and is available on the OSHA website (<http://www.osha.gov/SLTC/syntheticmineralfibers>).
- 8.2.1 Follow OSHA-recommended safe handling practices listed in Section 7.2 above.
- 8.2.2 Where feasible, general dilution ventilation or local exhaust ventilation should be used as necessary to maintain exposures below applicable exposure limits. Dust collection systems should be used in cutting or machining operations and may be needed when using power tools.
- 8.2.3 Follow OSHA-recommended work practices when fabricating, installing or removing product.
- 8.3 Personal Protective Equipment::
- 8.3.1 Respiratory:
- 8.3.1.1 General:  
In poorly ventilated areas when dusty conditions exist and/or dust levels exceed applicable exposure limits, wear a NIOSH certified dust respirator with an efficiency rating of N95 or higher. Use disposable face masks complying with NIOSH respirator standards, such as a 3M Model 8210 (or 8710) (3M Model 9900 in high humidity environments) or equivalent. For exposures up to five times the established exposure limits use a quarter-mask respirator, rated N95 or higher; and for exposures up to ten times the established exposure limits use a half-mask respirator (e.g. MSA's DM-11, Racal's Delta N95, 3M's 8210), rated N95 or higher. For exposures up to 50 times the established exposure limits use a full-face respirator, rated N99 or higher.
- 8.3.1.2 Specific Operations:  
In poorly ventilated areas when dusty conditions exist and/or dust levels exceed applicable exposure limits, wear a NIOSH certified dust respirator with an efficiency rating of N95 or higher, such as a 3M Model 8210 (or 8710) (3M Model 9900 in high humidity environments) or equivalent, when fabricating, installing or removing product.
- 8.3.2 Skin:  
Wear loose fitting, long sleeved and long-legged clothing to prevent irritation. A head cover is also recommended, especially when working with material overhead. The use of suitable gloves is also recommended. Skin irritation cannot occur if there is no contact with the skin. Do not tape sleeves or pants at wrists or ankles. Remove fibers from the work clothes, before leaving work to reduce potential skin irritation. If working in a very dusty environment it is advisable to shower and change clothes
- 8.3.3 Eyes/Face:  
Wear safety goggles or safety glasses with side shields.

## 9. Physical and Chemical Properties:

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| 9.1 <u>Appearance:</u>             | Grey, green fibrous batt or board |
| 9.2 <u>State:</u>                  | Solid                             |
| 9.3 <u>Odor:</u>                   | May have slight resin odour       |
| 9.4 <u>Boiling point::</u>         | n.a.                              |
| 9.5 <u>Melting point:</u>          | Approximately 2150 °F (1177 °C)   |
| 9.6 <u>Vapour pressure:</u>        | n.a.                              |
| 9.7 <u>Vapour Density:</u>         | n.a.                              |
| 9.8 <u>Specific Gravity:</u>       | n.a.                              |
| 9.9 <u>Evaporation Rate:</u>       | n.a.                              |
| 9.10 <u>Freezing Point:</u>        | n.a.                              |
| 9.11 <u>Viscosity:</u>             | n.a.                              |
| 9.12 <u>Solubility:</u>            | Insoluble (H <sub>2</sub> O)      |
| 9.13 <u>Partition coefficient:</u> | n.a.                              |

n.a. = not applicable

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#### 10. Stability and Reactivity:

- 10.1 Stability: Stable
- 10.2 Reactivity: Not reactive
- 10.3 Thermal decomposition products:  
Primary combustion products of the cured urea extended phenolic formaldehyde binder, when heated above 390 °F (200 °C), are carbon monoxide, carbon dioxide, ammonia, water and trace amounts of formaldehyde. Other undetermined compounds could be released in trace quantities. Emission usually only occurs during the first heating. The released gases may be irritating to the eyes, nose and throat during initial heat-up. Use appropriate respirators (air supplied) particularly in tightly confined or poorly ventilated areas during initial heat-up.
- 10.4 Hazardous Polymerization: Will not occur
- 10.5 Incompatible Materials: This product reacts with hydrofluoric acid.
- 

#### 11. Toxicological Information:

- 11.1 Acute Toxicity:  
Coarse fibers and dust from mineral wool products can cause temporary mechanical irritation (itching, redness) of the skin, and of the mucous membranes in the eyes and in the upper respiratory tract (nose and throat). The itching and possible inflammation are a mechanical reaction to dust and coarse fibers (of more than about 5 µm in diameter), and are not damaging in the way chemical irritants may be. They generally abate within a short time after the end of exposure. When products are handled continually, the skin itching generally diminishes.
- 11.2 Chronic Toxicity:
- 11.2.1 Summary: In October 2001, IARC completed a re-evaluation of respirable mineral wool fibers and classified them in Group 3 (not classifiable as to their carcinogenicity to humans). A summary of the most important scientific studies appears below:
- 11.2.2 Human Data:
- 11.2.2.1 The possible carcinogenic effects of exposure to mineral wool fibers has been evaluated in a number of epidemiological (human) studies. Most of this research, including large long-term studies of mineral wool production workers in the U.S. and Europe, has been sponsored or supported by the North American and International thermal insulation industries, including Roxul Inc. Published reports of the early results of these studies identified significantly elevated rates of respiratory cancer in several subcohorts of the worker populations under evaluation (e.g., Simonato et al. 1987; Enterline et al. 1987). However, the studies had several methodological limitations, including failure to control for confounding exposures to other possible causes of the elevated cancer risk, including tobacco use and occupational exposures to recognized carcinogens such as asbestos. For these reasons, the authors of these reports did not interpret the results as establishing an association between exposure to mineral wool fibers and an increased risk of cancer. Several of these earlier reports formed part of the basis for IARC's previous classification of mineral wool fibers in Group 2B (possibly carcinogenic to humans) (IARC 1987).
- 11.2.2.2 Follow-up studies, including case-control studies designed to exclude the contribution of confounding exposures to the cancer experience of the study populations, found no evidence that mineral wool fibers are associated with an increased cancer risk (Marsh et al. 1996; Wong, et al. 1991; Kjaerheim et al. 2001). In announcing the new Group 3 classification for mineral wool fibers, IARC stated: "Epidemiologic studies published during the 15 years since the previous IARC Monographs review of these fibers in 1988 provide no evidence of increased risks of lung cancer or of mesothelioma (cancer of the lining of the body cavities) from occupational exposures during manufacture of these materials" (IARC 2001).
- 11.2.3 Animal Data:
- 11.2.3.1 Several studies of intraperitoneal injection of high doses of mineral wool fibers have produced significant increases in the incidence of mesothelioma (IARC 2002). The intraperitoneal injection studies formed part of the basis for IARC's previous (IARC 1987) Group 2B classification for mineral wool fibers. Leading scientists agree that intraperitoneal injection studies (i.e., surgical implantation or injection into the chest or abdomen) are the least relevant type of animal study for evaluating

potential human risk for fiber exposures, because such studies bypass the animals' natural defense mechanisms and involve a type and pattern of exposure (implantation of a high dose early in life) that does not mimic human patterns of exposure (inhalation of much lower doses over a lifetime) (National Research Council 2000).

11.2.3.2 A well-designed long-term inhalation study in rats exposed to mineral wool fibers found no significant increase in lung tumor incidence, and no mesotheliomas (IARC 2002). Likewise, in two intratracheal instillation studies of mineral wool fibers, no significant increase in the incidence of lung tumors or mesotheliomas was found (IARC 2002). Inhalation studies are regarded as the most relevant type of animal data for evaluating potential human risk, and intratracheal instillation studies, while less relevant, are considered valuable for the initial screening of fibrous compounds (National Research Council 2000). Thus, evaluating all the available animal studies in conjunction with the human data, IARC's most recent review finds "inadequate evidence overall for any cancer risk" from mineral wool fibers (IARC 2001).

#### 11.3 Evaluations of Potential Carcinogenicity:

<u>Source</u>	<u>Classification</u>	<u>Description</u>
IARC	Group 3	Not Classifiable as a Human Carcinogen
ACGIH	Group A3	Confirmed Animal Carcinogen with Unknown Relevance to Humans

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### 12. **Ecological Information:**

12.1 Ecotoxicity: No data available for the products. The products are stable, are not expected to cause harm to animals, plants or fish, and have no other known adverse environmental effects.

12.2 Environmental Fate: No data available for the products.

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### 13. **Disposal Considerations:**

#### 13.1 US EPA Waste Number & Descriptions:

13.1.1 General Product Information: The products, as supplied, are not expected to be a characteristic hazardous waste under RCRA if discarded.

13.1.2 EPA Waste Numbers: No EPA Waste Numbers are applicable for this product's components.

13.2 Disposal Instructions: Product is not considered a hazardous waste. Dispose of waste material according to Federal, State, Provincial, and Local environmental regulations.

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### 14. **Transport Information:**

14.1 General: No special precautions.

14.2 US DOT Information: This product is not classified as a hazardous material for transport.

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### 15. **Regulatory Information:**

#### 15.1 U.S. Regulations:

15.1.1 Toxic Substances Control Act (TSCA): All components in this product are listed, as required, on the US EPA TSCA inventory, or are not required to be listed

15.1.2 CERCLA: Includes mineral fiber emissions from facilities manufacturing or processing glass rock or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less; Statutory RQ = 1 pound (.454 kg); no final RQ is being assigned to the generic or broad class (related to Fine mineral fibers).

15.1.3 Clean Air Act: Mineral wool fiber appears on the Clean Air Act-1990 Hazardous Air Pollutants List.

15.2 State and Local Regulations: State, Provincial, and Local regulations not identified in this Material Safety Data Sheet may apply.

15.3 WHMIS: The products have been classified in accordance with the hazard criteria of the Controlled Product Regulations and this Material Safety Data Sheet contains all the information required by the Controlled Product Regulations

15.3.1: WHMIS IDL: No components are listed on the IDL

15.3.2: WHMIS Classification: No components are classified as controlled products.

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## 16. Further Information:

### 16.1 Potential Health Effects:

IARC Monograph Man-made Vitreous Fibres, press release October 2001

Safety in the Use of Mineral and Synthetic Fibers, Occupational Safety and Health Series. International Labor Office (ILO).

Information about "Health and Safety Research on Rock- and Slag-wool" can be obtained from the North American Insulation Manufacturers Association (NAIMA), 44 Canal Center Plaza, Suite 310, Alexandria, VA 22314, USA). Home-page: <http://www.naima.org>

### 16.2 Key/Legend:

ACGIH = American Conference of Governmental Industrial Hygienists; CAA = Clean Air Act; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; DOT = Department of Transportation; EPA = Environmental Protection Agency; HMIS = Hazardous Material Identification System; HSPP = Health and Safety Partnership Program; IARC = International Agency for Research on Cancer; MSDS = Material Safety Data Sheet; NAIMA = North American Insulation Manufacturers Association; NFPA = National Fire Protection Association; NIOSH = National Institute for Occupational Safety and Health; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit; RCRA = Resource Conservation and Recovery Act; RQ = Reportable Quantity; SVF = synthetic vitreous fibers; TSCA = Toxic Substances Control Act; TWA = time-weighted average; WHMIS = Workplace Hazardous Materials Information System.

16.3 References: Complete citations, or copies, of all references cited in this Material Safety Data Sheet can be obtained from Roxul Inc. (see Section 1).

16.4 Accuracy: The information contained herein is based upon data considered to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data, the results to be obtained from the use thereof, or that any such use will not infringe upon any patent. This information is furnished as a guide only and upon the condition that the person receiving it shall make tests to determine the accuracy and suitability for his or her own purpose.

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# MATERIAL SAFETY DATA SHEET

## THERMAFIBER® GRANULATED PRODUCTS

Thermafiber Inc.  
3711 Mill Street  
Wabash, Indiana 46992

Page 1 of 2  
Phone (260) 563-2111  
Version Date: February 1st, 2014  
MSDS NO. 00002, Version 4

### SECTION I PRODUCT IDENTIFICATION

#### PRODUCT(S): THERMAFIBER® Granulated Products

®Trademark of Thermafiber Inc.

**SYNONYM:** Insulation

**CHEMICAL FAMILY:** Slag wool fiber.

### SECTION II INGREDIENTS

MATERIAL	WT%	ACGIH TLV (mg/m³)	OSHA PEL (mg/m³)	CAS NUMBER
Slag wool fiber¹	>95	10(T)/3(R)	15(T)/5(R)	65997-17-3
Mineral Oil	<5	5 <sup>mist</sup>	5 <sup>mist</sup>	64742-65-0

(T) - Total (R) - Respirable (NE) - Not Established

¹OSHA and ACGIH recommended exposure level is 1 fiber/cc and NIOSH recommended exposure level is 3 fibers/cc. This material is slag wool. Other generic terms that are used or have been used to classify this material include mineral wool, stone wool, man-made mineral fiber (MMMF), and man-made vitreous fiber (MMVF). A more recent generic term that has appeared in the literature to describe these glass-like materials is synthetic vitreous fiber (SVF).

### SECTION III HAZARD IDENTIFICATION

#### POTENTIAL HEALTH EFFECTS:

**ACUTE:** The primary component of this product is mineral wool fiber. During application or when dusty conditions exist, mineral wool dust may cause transitory mechanical irritation to skin, eyes or respiratory tract.

**EYES:** Direct contact with eye can cause mechanical irritation.

**SKIN:** This material (in wet state or as dust) is not chemically harmful if it gets on the skin and is not immediately washed off. However direct contact of dust and mineral wool fibers with skin can cause skin irritation (mechanical) and itchiness.

**INHALATION:** Inhalation of dust can cause nose, throat, lungs and upper respiratory tract irritation. Persons exposed to dust may be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation.

**INGESTION:** No known effects.

**CHRONIC:** Persons with chronic or systemic skin or eye disease should use precautions and wear all personal protective equipment when working with this product.

### SECTION IV FIRST AID MEASURES

**EYES:** In case of contact, immediately flush thoroughly with copious amounts of water occasionally lifting the lower and upper lids (to remove particulates). Get medical attention immediately. Contact lenses should not be worn when working with this product.

**SKIN:** Skin contact is not a chemical hazard. Mechanical action of fibers on skin can cause itchiness. Irritation of skin may occur with prolonged and repeated contact. Rinse with cool water, followed by washing with soap and warm water. A commercially available skin cream or lotion may be helpful to treat dry skin areas. Wash hands before eating or using restroom.

**INHALATION:** If exposed to excessive levels of dust, leave area of dust exposure and remain away until coughing and other symptoms subside. Other measures are usually not necessary, however if conditions warrant, get medical attention.

**INGESTION:** No harmful or chronic effects expected. No specific recommendation. If gastric disturbance occurs, call physician.

**TARGET ORGANS:** Eyes, skin, lungs and respiratory system.

**MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED:** Pre-existing upper respiratory and lung disease such as, but not limited to, bronchitis, emphysema and asthma.

**PRIMARY ROUTES OF ENTRY:** Inhalation, eyes and skin contact.

Note to physician: This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

### SECTION V FIRE FIGHTING MEASURES

The products are non-combustible and do not pose a fire hazard. However, packaging material may burn.

**Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>), water, water fog, foam, dry chemical

**Special Fire Fighting Procedures:** No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

**Unusual Fire and Explosion Hazards:** None.

**Special Fire Fighting Protective Equipment:** Observe normal fire fighting procedures.

**Flash Point (Method Used):** Not applicable.

**Upper and lower flammable limits in air:** Not applicable.

**Autoignition temperature:** Not applicable.

**Hazardous Combustion Products:** Carbon dioxide, carbon monoxide and trace gases.

### SECTION VI ACCIDENTAL RELEASE MEASURES

**CONTAINMENT:** Not necessary. Treat as inert material.

**CLEAN UP:** Pick up large pieces. Use gloves to avoid skin irritation. Vacuum dust, preferably with an industrial vacuum cleaner with high efficiency air filter. If sweeping is necessary, use dust suppressant such as water. Do not dry sweep dust accumulation or use compressed air for clean up. These procedures will help minimize potential exposures.

**DISPOSAL:** Dispose in sanitary landfill in accordance with local, state and federal requirements.

### SECTION VII HANDLING AND STORAGE

**HANDLING:** Use protective equipment to avoid irritation as described in Section 8.

**STORAGE:** Warehouse storage should be in accordance with package directions. Material should be kept dry and protected from the elements.

### SECTION VIII EXPOSURE CONTROL/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Provide general ventilation and local exhaust ventilation to meet TLV requirements of individual ingredients (see Section 2) and to control dusting conditions.

If cutting or trimming with power equipment, dust collectors and local ventilation should be used.

Avoid unnecessary exposure to dust and handle with care. Keep work area clean of dust and fibers by using an industrial vacuum cleaner with high efficiency filter or wetting down area with water. Never use compressed air and avoid dry sweeping.

**EYE PROTECTION:** Wear safety glasses with sideshields or goggles to avoid eye irritation.

**RESPIRATORY PROTECTION:** Wear a NIOSH/MSHA-approved dust respirator in poorly ventilated areas, where local exhaust is not feasible, if TLV is exceeded, and/or when dusty conditions exist. Avoid prolonged and repeated breathing of dust.

**OTHER CLOTHING:** Wear tight fitting goggles and gloves when dusty conditions exist. Wear long-sleeved, loose fitting clothing at the neck and wrists and minimize skin contact. Wash work clothing separately from other clothing. Rinse washer thoroughly after use.

## SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance and Odor:** White to off white in color with low odor
- **Physical State:** Solid
- **Boiling Point:** Not applicable
- **Freezing Point:** Not applicable
- **Melting Point:** 2100° F (1150° C)
- **Specific Gravity (H<sub>2</sub>O=1):** Not applicable
- **Solubility in Water:** Insoluble
- **pH Range:** Not applicable
- **Vapor Pressure:** Not applicable
- **Evaporation Rate (in-Butyl Acetate=1):** Not applicable
- **Percent Volatile:** Not applicable
- **Volatile Organic Compounds:** Not applicable

## SECTION X CHEMICAL STABILITY

**STABILITY:** Stable  
**REACTIVITY:** Not reactive  
**INCOMPATIBILITY:** Acids (gives off H<sub>2</sub>S under certain acidic conditions)  
**HAZARDOUS POLYMERIZATION:** Will not occur  
**HAZARDOUS DECOMPOSITION:** Oxides of carbon and smoke would be produced at high temperatures with thermal decomposition.

## SECTION XI TOXICOLOGICAL INFORMATION

**ACUTE DATA:**  
**SLAG WOOL FIBER (65997-17-3)**  
**Oral LD<sub>50</sub>RAT:** Not determined  
**Dermal LD<sub>50</sub>RAT:** Not determined  
**Skin Irritation:** Mechanical Irritant  
**Eye Irritation:** Mechanical Irritant  
Contact with mineral wool fibers may cause temporary eye and skin irritation (mechanical). When products are handled continually, the skin irritation generally diminishes.  
**Chronic Data:** Inhalation: In October 2001, the International Agency for Research on Cancer (IARC) classified mineral wool fibers (rock or slag) as Group 3 (not classifiable as to carcinogenicity to humans).

## SECTION XII ECOLOGICAL INFORMATION

This product is not expected to have an adverse effect on the ecology.

## SECTION XIII DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** Dispose of material in accordance with federal, state, and local regulations. Wastes are not hazardous as defined by the Resource Conservation and Recovery Act (RCRA; 40 CFR 261).  
**WASTE NUMBERS:** No EPA Waste Numbers are applicable for this product's components.

## SECTION XIV TRANSPORT INFORMATION

**U.S. DOT INFORMATION:** Not a hazardous material per DOT shipping requirements. Not classified or regulated.

## SECTION XV REGULATORY INFORMATION

### CANADIAN REGULATIONS:

WHMIS: D2B  
All components of this product are included in the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

### USA REGULATIONS:

All ingredients of this product are included in the U.S. Environmental

Protection Agency's Toxic Substances Control Act Chemical Substance Inventory.

## CARCINOGENICITY CLASSIFICATION OF INGREDIENTS:

Material	IARC	NTP
Man Made Vitreous Fiber	Group 3	None

In October 2001, the International Agency for Research on Cancer (IARC) classified mineral wool fibers (rock or slag) as **Group 3 (not classifiable as to carcinogenicity to humans)**. IARC noted specifically: "no evidence of increased risks of lung cancer or mesothelioma (cancer of the lining of the body cavities) from occupational exposures during manufacture of these materials, and inadequate evidence overall of any cancer risk." This was a reversal of the IARC finding in 1987 of a Group 2B designation (possibly carcinogenic to humans) based on earlier studies in which animals were injected with large quantities of slag wool fibers.

## SECTION XVI OTHER INFORMATION

### INFORMATION FOR HANDLING AND IDENTIFICATION OF CHEMICAL HAZARDS

NFPA Ratings: Health: 0 Fire: 0 Reactivity: 0 Other: N/A  
HMIS Ratings: Health: 0 Fire: 0 Reactivity: 0  
Personal Protection: Use eye and skin protection. Use NIOSH/MSHA - approved respiratory protection when necessary.  
0 = Minimal Hazard 1 = Slight Hazard 2 = Moderate Hazard  
3 = Serious Hazard 4 = Severe Hazard

### △ CAUTION:

Dust exposure can cause temporary eye, skin and respiratory tract irritation. Avoid creating dust and install in well ventilated area. Cut and trim with razor knife or hand saw to minimize dust levels. Using power tools for cutting will generate high dust levels. Power tools should be equipped with dust collection system. Use NIOSH/MSHA-approved dust respirator. Avoid dust contact with eyes and skin. Wear eye protection and long-sleeve, loose fitting clothing closed at the neck and wrists. Wash work clothing separately from other clothing. Rinse washer thoroughly.

### KEEP OUT OF REACH OF CHILDREN THIS PRODUCT CONTAINS NO ASBESTOS

**FIRST AID:** For skin irritation, rinse skin with cool water, followed by washing with soap and warm water. For eye irritation, flush eyes thoroughly with water for 15 minutes. If irritation continues, or product is swallowed, consult a physician. Additional product safety information is available on the Thermafiber web site, [www.thermafiber.com](http://www.thermafiber.com) or by calling (260) 563-2111.

### Key/Legend

ACGIH	American Conference of Government Industrial Hygienists
CAS	Chemical Abstracts Service (Registry Number)
DOT	United States Department of Transportation
EPA	United States Environmental Protection Agency
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NTP	National Toxicology Program
OSHA	Occupational Health and Safety Administration
PEL	Permissible Exposure Limit
TLV	Threshold Limit Value



**Fire Resistant Mineral Wool Insulation**

Version 0.0

Revision Date 01/19/2015

Print Date 01/19/2015

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Trade name : MinWool-1200® Industrial Board, MinWool-1200® Flexible Batt, MinWool-1200® Pipe, MinWool-1200® Pipe and Tank Wrap, MinWool® Sound Attenuation Fire Batt, MinWool® Safing, MinWool® Curtainwall, MinWool-1200® Field Formed Pipe Insulation, MinWool-1200® Preformed Pipe Insulation, MinWool-1200® Metal Mesh Blanket, MinWool-1200® Precision Cut Pipe Insulation, MinWool-1200® Mitered Fittings, MinWool® Deck Plug Fire Stop, MinWool-1200® Lamella Tank Wrap, MinWool® Marine Board

Manufacturer or supplier's details

Company : Johns Manville  
Address : P.O. Box 5108  
Denver, CO USA 80127  
Telephone : 303-978-2000 8:00AM-5:00PM M-F  
Emergency telephone : 1-800-424-9300 (Chemtrec, in English)  
number

Prepared by : productsafety@jm.com

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Not a hazardous substance or mixture.

**Other hazards**

Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product.

Trace amounts of formaldehyde may be released when contacted with moisture, including humidity. This release is most prevalent in conditions of high heat and humidity.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical nature**

Mineral wool product

**Hazardous components**

Non-hazardous according to 29 CFR 1910.1200, when used as intended.

**Relevant ingredients**

Chemical Name	CAS-No.	Concentration (%)
Mineral fibers	Not Assigned	>= 95 - <= 100 %
Cured urea extended phenol-formaldehyde resin	Not Assigned	>= 0 - <= 5 %

**SECTION 4. FIRST AID MEASURES**

General advice : Get medical attention if symptoms occur.

**Fire Resistant Mineral Wool Insulation**

Version 0.0

Revision Date 01/19/2015

Print Date 01/19/2015

- If inhaled : Move to fresh air.  
If symptoms persist, call a physician.
- In case of skin contact : If on skin, rinse well with water.  
Get medical attention if irritation develops and persists.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
If eye irritation persists, consult a specialist.
- If swallowed : If symptoms persist, call a physician.  
Rinse mouth with water to remove dust or fibers and drink plenty of water to help reduce irritation.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Avoid dust formation.
- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Keep in a dry, cool place.
- Materials to avoid : No materials to be especially mentioned.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

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Nuisance dust	Not Assigned	TWA (Total particulate)	15 mg/m3	OSHA
		TWA (Respirable fraction)	5 mg/m3	OSHA

As a member of NAIMA, JM subscribes to the NAIMA Product Stewardship Program (NPSP). Under the NPSP, JM recommends that exposures be limited to the voluntary concentration of 1 f/cc TWA. The NPSP also includes work practice and respiratory protection recommendations. For more information, see: <http://www.naima.org/insulation-knowledge-base/health-and-safety-aspects/product-stewardship-program-for-worker-protection.html>.

### Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.  
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hand protection  
Remarks : For prolonged or repeated contact use protective gloves.
- Eye protection : Safety glasses
- Skin and body protection : Long sleeved clothing
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : solid
- Colour : natural colour
- Odour : not significant
- Odour Threshold : No data available
- pH : Not applicable
- Melting point/range : > 2,000 °F  
: Not applicable
- Flash point : Not applicable
- Evaporation rate : Not applicable
- Flammability (solid, gas) : No data available
- Upper explosion limit : Not applicable
- Lower explosion limit : Not applicable
- Vapour pressure : Not applicable
- Relative vapour density : Not applicable



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Relative density	: No data available
Density	: Not applicable
Solubility(ies)	
Water solubility	: Not applicable
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: Not applicable
Viscosity	
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	: No data available

**SECTION 11. TOXICOLOGICAL INFORMATION**

<b>IARC</b>	Group 3: Not classifiable as to its carcinogenicity to humans  Mineral fibers
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>NTP</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Further information****Product:**

Remarks: Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product. Trace amounts of formaldehyde may be released when contacted with moisture, including humidity. This release is most

**Fire Resistant Mineral Wool Insulation**

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prevalent in conditions of high heat and humidity.

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

Additional ecological information : Due to the properties of the product, a hazard to the environment may not be expected.

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Disposal of residual product : In accordance with local and national regulations.

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**SECTION 14. TRANSPORT INFORMATION****International transport regulations**

These products are not classified as dangerous goods according to international transport regulations.

---

**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

**California Prop 65**

WARNING! This product contains a chemical known to the

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State of California to cause cancer.

**The components of this product are reported in the following inventories:**

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL.

**SECTION 16. OTHER INFORMATION****Further information**

Revision Date : 01/19/2015

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

## Safety Data Sheet

**Material Name:** Mule-Hide Black Lap Sealant

**SDS 10-3415**

---

### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

---

**Material Name:** Mule-Hide Black Lap Sealant

**Synonym:** Industrial Sealant

**Chemical Family:** Solvent Based Sealant

**Product Use:** Sealant for EPDM Single-Ply Roofing Membranes

**Restrictions on Use:** For industrial use only.

**Manufacturer Information**

Carlisle SynTec  
1285 Ritner Highway  
Carlisle, PA 17013  
USA  
Phone: +1-800-479-6832  
Emergency Phone #: +1-800-424-9300 (CHEMTREC)

**Supplier Information:**

Mule-Hide Products Co., Inc  
1195 Prince Hall Dr.  
Beloit, WI 53511  
USA  
Phone: 888-786-1492

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### Section 2 - HAZARDS IDENTIFICATION

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**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

Flammable Liquids - Category 2

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2A

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 1 (lungs, central nervous system)

**GHS Label Elements**

**Symbol(s)**



**Signal Word**

Danger

**Hazard Statement(s)**

Highly flammable liquid and vapor

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation. May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure

**Precautionary Statement(s)**

**Prevention**

## Safety Data Sheet

**Material Name: Mule-Hide Black Lap Sealant**

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Keep container tightly closed  
Keep away from heat/sparks/open flame/hot surfaces - No smoking  
Ground/Bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting equipment  
Take precautionary measures against static discharge  
Use only non-sparking tools  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapours/spray  
Wash thoroughly after handling  
Do not eat, drink or smoke when using this product

### Response

In case of fire: Use appropriate media to extinguish  
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash before reuse  
Call a POISON CENTER or doctor if you feel unwell  
Specific treatment (see label)

### Storage

Store in a well-ventilated place. Keep cool  
Keep container tightly closed  
Store locked up

### Disposal

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

---

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

---

CAS	Component Name	Percent
Not applicable	Ground coal	1-5
Trade Secret	Silica compound	1-5
Trade Secret	Severely hydrotreated paraffinic oil	3-7
1317-65-3	Limestone	10-30
Trade Secret	Carbon compound	1-5
Trade Secret	Polyphenol antioxidant	0.1-1
64742-89-8	Naphtha, petroleum, light aliphatic	10-30

## Safety Data Sheet

Material Name: Mule-Hide Black Lap Sealant

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Trade Secret	Polybutene	1-5
Mixture	Terpene phenolic resin	1-5
12001-26-2	Mica	0.1-1
64742-88-7	Solvent naphtha, petroleum, medium aliphatic	10-30

---

### Section 4 - FIRST AID MEASURES

---

#### Description of Necessary Measures

IF exposed or concerned: Get medical advice/attention.

#### Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

#### Skin

Remove/Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation occurs, get medical advice/attention.

#### Eyes

Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

#### Ingestion

If swallowed, get medical attention. Do NOT induce vomiting.

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

Treat symptomatically and supportively.

#### Most Important Symptoms/Effects

##### Acute

Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May cause gastrointestinal irritation.

##### Delayed

Causes damage to organs through prolonged or repeated exposure: lungs, central nervous system.

---

### Section 5 - FIRE FIGHTING MEASURES

---

#### Extinguishing Media

##### Suitable Extinguishing Media

Dry chemical, foam or carbon dioxide. Water may be ineffective. Use water spray to keep containers cool.

##### Unsuitable Extinguishing Media

Do not use high-pressure water streams.

## Safety Data Sheet

**Material Name: Mule-Hide Black Lap Sealant**

**SDS 10-3415**

### **Special Hazards Arising from the Chemical**

Can burn and explode easily when exposed to open flames or high heat.

### **Hazardous Combustion Products**

Oxides of carbon, oxides of nitrogen

### **Fire Fighting Measures**

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

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## **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**

Remove all sources of ignition. Avoid breathing vapors. Ventilate affected area. Absorb with earth, sand or other non-combustible material and transfer to container. Use non-sparking tools. Dike for later disposal.

### **Environmental Precautions**

Avoid release to the environment.

---

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

---

### **Precautions for Safe Handling**

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Do not eat or drink when using this product. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Wash contaminated clothing before reuse. **KEEP OUT OF REACH OF CHILDREN.**

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

Store in a well-ventilated place. Keep cool

Keep container tightly closed

Store locked up

Keep away from heat and ignition sources. Keep away from incompatible materials. Do not cut, puncture, or weld on or near this container.

### **Incompatible Materials**

Strong oxidizing agents, acids, bases

---

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

---

### **Component Exposure Limits**

## Safety Data Sheet

**Material Name: Mule-Hide Black Lap Sealant**
**SDS 10-3415**

<b>Silica compound</b>	Trade Secret	
OSHA (US):	20 mppcf TWA; ((80)/(% SiO <sub>2</sub> ) mg/m <sup>3</sup> TWA)	
Mexico:	10 mg/m <sup>3</sup> TWA LMPE-PPT	
<b>Limestone</b>	1317-65-3	
NIOSH:	10 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable dust	
OSHA (US):	15 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable fraction	
Mexico:	10 mg/m <sup>3</sup> TWA LMPE-PPT	20 mg/m <sup>3</sup> STEL [LMPE-CT]
<b>Carbon compound</b>	Trade Secret	
ACGIH:	3 mg/m <sup>3</sup> TWA inhalable fraction	
NIOSH:	3.5 mg/m <sup>3</sup> TWA; 0.1 mg/m <sup>3</sup> TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons) as PAH	
	1750 mg/m <sup>3</sup> IDLH	
OSHA (US):	3.5 mg/m <sup>3</sup> TWA	
Mexico:	3.5 mg/m <sup>3</sup> TWA LMPE-PPT	7 mg/m <sup>3</sup> STEL [LMPE-CT]
<b>Mica</b>	12001-26-2	
ACGIH:	3 mg/m <sup>3</sup> TWA respirable fraction	
NIOSH:	3 mg/m <sup>3</sup> TWA (containing <1% Quartz) respirable dust	1500 mg/m <sup>3</sup> IDLH (containing <1% Quartz)
OSHA (US):	20 mppcf TWA (<1% Crystalline silica)	
Mexico:	3 mg/m <sup>3</sup> TWA LMPE-PPT respirable fraction	
<b>Silica, crystalline</b>	14808-60-7	
ACGIH:	0.025 mg/m <sup>3</sup> TWA respirable fraction	
NIOSH:	0.05 mg/m <sup>3</sup> TWA respirable dust	50 mg/m <sup>3</sup> IDLH respirable dust



## Safety Data Sheet

**Material Name: Mule-Hide Black Lap Sealant**
**SDS 10-3415**

OSHA (US):	((30)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA) total dust; ((250)/(%SiO <sub>2</sub> + 5) mppcf TWA) respirable fraction; ((10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA) respirable fraction
Mexico:	0.1 mg/m <sup>3</sup> TWA LMPE-PPT respirable fraction

**Biological limit value**

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

**Engineering Controls**

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

**Individual Protection Measures, such as Personal Protective Equipment**
**Eye/face protection**

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin Protection**

Wear appropriate work clothing. Wear protective shoes. Recommended material: protective skin cream.

**Respiratory Protection**

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**Glove Recommendations**

Wear appropriate chemical resistant gloves.

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### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	viscous paste	<b>Physical State</b>	liquid
<b>Odor</b>	hydrocarbon	<b>Color</b>	black
<b>Odor Threshold</b>	Not available	<b>pH</b>	Not available
<b>Melting Point</b>	<18 °C (< 0 °F)	<b>Boiling Point</b>	119 - 185 °C (246-365 °F)
<b>Freezing point</b>	<18 °C	<b>Evaporation Rate</b>	3.5
<b>Boiling Point Range</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition</b>	230 °C (446 °F)	<b>Flash Point</b>	4.4 °C [TCC] (40 °F)
<b>Lower Explosive Limit</b>	0.8 %	<b>Decomposition</b>	Not available
<b>Upper Explosive Limit</b>	6.7 %	<b>Vapor Pressure</b>	8.27 mmHg
<b>Vapor Density (air=1)</b>	4	<b>Specific Gravity (water=1)</b>	1.03 - 1.04
<b>Water Solubility</b>	negligible	<b>Partition coefficient: n-octanol/water</b>	Not available

## Safety Data Sheet

Material Name: Mule-Hide Black Lap Sealant

SDS 10-3415

<b>Viscosity</b>	1100000 cps	<b>Solubility (Other)</b>	hydrocarbons
<b>Density</b>	Not available	<b>VOC</b>	390 - 400 g/L

### Other Information

No additional information available.

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## Section 10 - STABILITY AND REACTIVITY

---

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable under normal conditions of use.

### Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

### Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

### Incompatible Materials

Strong oxidizing agents, acids, bases

### Hazardous decomposition products

Oxides of carbon, oxides of nitrogen

---

## Section 11 - TOXICOLOGICAL INFORMATION

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### Information on Likely Routes of Exposure

#### Inhalation

May cause respiratory irritation.

#### Skin Contact

Causes skin irritation.

#### Eye Contact

Causes serious eye irritation.

#### Ingestion

May cause gastrointestinal irritation.

### 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:

Severely hydrotreated paraffinic oil (Trade Secret)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit >2000 mg/kg

## Safety Data Sheet

**Material Name: Mule-Hide Black Lap Sealant**

**SDS 10-3415**

Carbon compound (Trade Secret)

Oral LD50 Rat >15400 mg/kg

Polyphenol antioxidant (Trade Secret)

Oral LD50 Rat >200 mg/kg

Dermal LD50 Rabbit >5010 mg/kg

Naphtha, petroleum, light aliphatic (64742-89-8)

Oral LD50 Mouse 5000 mg/kg

Dermal LD50 Rabbit 3000 mg/kg

Solvent naphtha, petroleum, medium aliphatic (64742-88-7)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit 3000 mg/kg

Silica, crystalline (14808-60-7)

Oral LD50 Rat 500 mg/kg

### Immediate Effects

Cause skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May cause gastrointestinal irritation.

### Delayed Effects

Causes damage to organs through prolonged or repeated exposure: lungs, central nervous system.

### Irritation/Corrosivity Data

Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

### Respiratory Sensitization

No data available.

### Dermal Sensitization

It may cause sensitization in some individuals.

### Component Carcinogenicity

<b>Silica compound</b>	Trade Secret
IARC:	Monograph 68 [1997] (Group 3 (not classifiable))
<b>Carbon compound</b>	Trade Secret
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 93 [2010]; Monograph 65 [1996] (Group 2B (possibly carcinogenic to humans))
DFG:	Category 3B (could be carcinogenic for man, inhalable fraction)
OSHA:	Present

## Safety Data Sheet

**Material Name: Mule-Hide Black Lap Sealant**
**SDS 10-3415**

<b>Silica, crystalline</b>	14808-60-7
ACGIH:	A2 - Suspected Human Carcinogen
IARC:	Monograph 100C [2012]; Monograph 68 [1997] (Group 1 (carcinogenic to humans))
NTP:	Known Human Carcinogen (respirable size)
DFG:	Category 1 (causes cancer in man, alveola fraction)
OSHA:	Present (respirable size)

**Germ Cell Mutagenicity**

No data available.

**Reproductive Toxicity**

No data available.

**Specific Target Organ Toxicity - Single Exposure**

May affect the central nervous system: drowsiness, dizziness.

**Specific Target Organ Toxicity - Repeated Exposure**

May cause damage to organs through prolonged or repeated exposure: lungs, central nervous system.

**Aspiration hazard**

May cause aspiration hazard.

**Medical Conditions Aggravated by Exposure**

May cause allergic skin reaction. Aspiration into the lungs may cause chemical pneumonitis.

**Additional Data**

This product contains crystalline silica, which is a known carcinogen. However, this component is bound by the polymer portion of the sealant. The only way this component would be released is through incineration. Therefore, this product is not considered a carcinogen.

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### Section 12 - ECOLOGICAL INFORMATION

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**Ecotoxicity**

Avoid release to the environment.

**Component Analysis - Aquatic Toxicity**

<b>Severely hydrotreated paraffinic oil</b>	Trade Secret
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID

## Safety Data Sheet

**Material Name: Mule-Hide Black Lap Sealant**

**SDS 10-3415**

<b>Polyphenol antioxidant</b>	Trade Secret
Fish:	LC50 96 h Oncorhynchus mykiss >0.2 mg/L [semi-static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata >0.2 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >0.2 mg/L IUCLID
<b>Naphtha, petroleum, light aliphatic</b>	64742-89-8
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID
<b>Solvent naphtha, petroleum, medium aliphatic</b>	64742-88-7
Fish:	LC50 96 h Pimephales promelas 800 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata 450 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >100 mg/L IUCLID

### Persistence and Degradability

No information available for the product.

### Bioaccumulative Potential

No information available for the product.

### Mobility

No information available for the product.

### Other Toxicity

No additional information available.

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## Section 13 - DISPOSAL CONSIDERATIONS

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### Disposal Methods

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

---

## Section 14 - TRANSPORT INFORMATION

---

### US DOT Information:

**Shipping Name:**ADHESIVES



## Safety Data Sheet

**Material Name:** Mule-Hide Black Lap Sealant

**SDS 10-3415**

**Hazard Class:** 3  
**UN/NA #:** UN1133  
**Packing Group:** II  
**Required Label(s):** < 0.3 gal (limited quantity)

**IATA Information:**  
**Shipping Name:** ADHESIVES  
**Hazard Class:** 3  
**UN#:** UN1133  
**Packing Group:** II  
**Required Label(s):** < 0.3 gal (limited quantity)

**TDG Information:**  
**Shipping Name:** ADHESIVES  
**Hazard Class:** 3  
**UN#:** UN1133  
**Packing Group:** II  
**Required Label(s):**

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### Section 15 - REGULATORY INFORMATION

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#### 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 Section 311/312 (40 CFR 370 Subparts B and C)

**Acute Health:** Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** 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
Silica compound	Trade Secret	No	Yes	Yes	Yes	Yes
Limestone	1317-65-3	No	Yes	Yes	Yes	Yes
Carbon compound	Trade Secret	Yes	Yes	Yes	Yes	Yes
Mica	12001-26-2	Yes	Yes	Yes	Yes	Yes
Solvent naphtha, petroleum, medium aliphatic	64742-88-7	No	No	No	Yes	No
Silica, crystalline	14808-60-7	No	Yes	Yes	Yes	Yes

**The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):**

**WARNING!** This product contains a chemical known to the state of California to cause cancer

## Safety Data Sheet

**Material Name: Mule-Hide Black Lap Sealant**
**SDS 10-3415**

Carbon compound	Trade Secret
Carc:	carcinogen , initial date 2/21/03 (airborne, unbound particles of respirable size)
Silica, crystalline	14808-60-7
Carc:	carcinogen , initial date 10/1/88 (airborne particles of respirable size)

### Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Carbon compound	Trade Secret
	1 %
Mica	12001-26-2
	1 %
Silica, crystalline	14808-60-7
	1 %

### Component Analysis - Inventory

Silica compound (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
No	DSL	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Severely hydrotreated paraffinic oil (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	No

Limestone (1317-65-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	NSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Carbon compound (Trade Secret)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX

## Safety Data Sheet

**Material Name: Mule-Hide Black Lap Sealant**
**SDS 10-3415**

Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
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**Polyphenol antioxidant (Trade Secret)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No

**Naphtha, petroleum, light aliphatic (64742-89-8)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

**Polybutene (Trade Secret)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

**Mica (12001-26-2)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
No	DSL	No	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

**Solvent naphtha, petroleum, medium aliphatic (64742-88-7)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

**Silica, crystalline (14808-60-7)**

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes





## Safety Data Sheet

Material Name: Mule-Hide Black Lap Sealant

SDS 10-3415

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### Section 16 - OTHER INFORMATION

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#### HMIS Rating

Health: 1 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

#### NFPA Ratings

Health: 1 Fire: 3 Reactivity: 0

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

#### Summary of Changes

New SDS: March 17, 2015

#### 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; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; 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; LLV - Level Limit Value; 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; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; 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

##### Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. 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 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 his particular use.

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**Section 1 - PRODUCT AND COMPANY IDENTIFICATION**

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**Material Name:** Mule-Hide EPDM Bonding Adhesive

**Synonyms:** Solvent Based Adhesive

**Chemical Family:** Adhesive

**Product Use:** Bonding Adhesive for EPDM Single-Ply Roofing Membrane

**Restrictions on Use:** For industrial use only.

**Manufacturer Information:**

Carlisle SynTec  
1285 Ritner Highway  
Carlisle, PA 17013  
USA

Phone: +1-800-479-6832

Emergency Phone #: +1-800-424-9300 (CHEMTREC)

**Supplier Information:**

Mule-Hide Products Co., Inc  
1195 Prince Hall Dr.  
Beloit, WI 53511  
USA

Phone: 888-786-1492

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**Section 2 - HAZARDS IDENTIFICATION**

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**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

Flammable Liquids - Category 2

Aspiration Hazard - Category 1

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2A

Germ Cell Mutagenicity - Category 1B

Carcinogenicity - Category 1B

Reproductive Toxicity - Category 1B

Specific Target Organ Toxicity - Single Exposure - Category 1 ( central nervous system, kidneys, liver, respiratory system )

Specific Target Organ Toxicity - Single Exposure - Category 2 ( nervous system )

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 1 ( central nervous system, kidneys, nervous system, respiratory system )

Specific Target Organ Toxicity - Repeated Exposure - Category 2 ( blood, liver )

**GHS Label Elements**

**Symbol(s)**





## Safety Data Sheet

Material Name: Mule-Hide EPDM Bonding Adhesive

MSDS 10-2320

### Signal Word

Danger

### Hazard Statement(s)

Highly flammable liquid and vapor

Causes skin irritation

Causes serious eye irritation

May cause genetic defects

May cause cancer

May damage fertility or the unborn child

Causes damage to organs

May cause respiratory irritation. May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

### Precautionary Statement(s)

#### Prevention

Obtain special instructions before use

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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Ground/Bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting equipment

Use non-sparking tools

Use only outdoors or in a well-ventilated area

Take precautionary measures against static discharge

Do not breathe dust/fume/gas/mist/vapours/spray

Wash thoroughly after handling

Do not eat, drink or smoke when using this product

Wear protective gloves/protective clothing/eye protection/face protection

Use Personal Protective equipment as required

#### Response

In case of fire: Use appropriate media to extinguish

If exposed: Call a POISON CENTER or doctor/physician

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor if you feel unwell

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists, get medical advice/attention

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Specific treatment (see label)

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting



## Safety Data Sheet

Material Name: Mule-Hide EPDM Bonding Adhesive

MSDS 10-2320

### Storage

Store in a well-ventilated place. Keep container tightly closed

Store locked up

Keep cool

### Disposal

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

### Other Hazards

None known.

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## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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CAS	Component Name	Percent
Proprietary	Polychloroprene	10-30
Proprietary	Phenolic Resin	1-5
1309-48-4	Magnesium oxide (MgO)	0.5-1.5
108-88-3	Toluene	30-60
64742-89-8	Solvent naphtha, petroleum, light aliphatic	15-40
67-64-1	Acetone	5-10
1330-20-7	Xylenes (o-, m-, p- isomers)	1-5

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## Section 4 - FIRST AID MEASURES

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### Description of Necessary Measures

If exposed: Call a POISON CENTER or doctor/physician.

### Inhalation

Remove person to fresh air and keep comfortable for breathing. Give artificial respiration if not breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

### Skin

Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

### Eyes

IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.



## Safety Data Sheet

Material Name: Mule-Hide EPDM Bonding Adhesive

MSDS 10-2320

### Ingestion

Aspiration hazard. Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration.

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

No additional information is available.

### Most Important Symptoms/Effects

#### Acute

skin irritation, eye irritation, aspiration hazard, central nervous system damage, kidney damage, liver damage, respiratory system damage, nervous system damage, nervous system Effects.

#### Delayed

central nervous system damage, kidney damage, nervous system damage, respiratory system damage, blood Effects, liver effects.

### Note to Physicians

If adverse effects occur, treat symptomatically and supportively.

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## Section 5 - FIRE FIGHTING MEASURES

---

### Extinguishing Media

#### Suitable Extinguishing Media

Dry chemical, foam or carbon dioxide. Water may be ineffective.

#### Unsuitable Extinguishing Media

Do not scatter spilled material with high-pressure water streams.

### Special Hazards Arising from the Chemical

Highly flammable. Vapors are heavier than air and may travel along the ground to distant sources and flash back.

### Hazardous Combustion Products

Oxides of carbon, hydrogen cyanide, oxides of nitrogen.

### Special Protective Equipment and Precautions for Firefighters

Wear self-contained breathing apparatus with a full facepiece and protective clothing.

### 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.



## Safety Data Sheet

Material Name: Mule-Hide EPDM Bonding Adhesive

MSDS 10-2320

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### Section 6 - ACCIDENTAL RELEASE MEASURES

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#### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

#### Methods and Materials for Containment and Cleaning Up

Eliminate all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements, or confined areas. Absorb with earth, sand or other non-combustible material and transfer to container. Use non-sparking tools.

#### Environmental Precautions

Avoid release to the environment.

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### Section 7 - HANDLING AND STORAGE

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#### Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Use non-sparking tools. Wash contaminated clothing before reuse. Do not get in eyes, on skin, or on clothing. Ground/bond container and receiving equipment. Wear protective gloves/clothing and eye/face protection. When using, do not eat, drink or smoke. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Do not breathe gas, fumes, vapor, or spray. Wash thoroughly after handling. Keep out of the reach of children.

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

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep cool. Do not cut, puncture, or weld on or near this container. Empty containers may contain product residue.

#### Incompatible Materials

Strong oxidizing agents, acids, bases.

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### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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#### Component Exposure Limits

Magnesium oxide (MgO)	1309-48-4
ACGIH:	10 mg/m <sup>3</sup> TWA inhalable fraction
NIOSH:	750 mg/m <sup>3</sup> IDLH fume
OSHA (US):	15 mg/m <sup>3</sup> TWA fume, total particulate
Mexico:	10 mg/m <sup>3</sup> TWA LMPE-PPT as Mg fume

## Safety Data Sheet

**Material Name: Mule-Hide EPDM Bonding Adhesive**
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<b>Toluene</b>	108-88-3	
ACGIH:	20 ppm TWA	
NIOSH:	100 ppm TWA; 375 mg/m <sup>3</sup> TWA	150 ppm STEL; 560 mg/m <sup>3</sup> STEL
	500 ppm IDLH	
Europe:	50 ppm TWA; 192 mg/m <sup>3</sup> TWA	100 ppm STEL; 384 mg/m <sup>3</sup> STEL
	Possibility of significant uptake through the skin	
OSHA (US):	200 ppm TWA	300 ppm Ceiling
Mexico:	50 ppm TWA LMPE-PPT; 188 mg/m <sup>3</sup> TWA LMPE-PPT	
	Skin - potential for cutaneous absorption	
<b>Acetone</b>	67-64-1	
ACGIH:	500 ppm TWA	750 ppm STEL
NIOSH:	250 ppm TWA; 590 mg/m <sup>3</sup> TWA	2500 ppm IDLH (10% LEL)
Europe:	500 ppm TWA; 1210 mg/m <sup>3</sup> TWA	
OSHA (US):	1000 ppm TWA; 2400 mg/m <sup>3</sup> TWA	
Mexico:	1000 ppm TWA LMPE-PPT; 2400 mg/m <sup>3</sup> TWA LMPE-PPT	
	1260 ppm STEL [LMPE-CT]; 3000 mg/m <sup>3</sup> STEL [LMPE-CT]	
<b>Xylenes (o-, m-, p-isomers)</b>	1330-20-7	
ACGIH:	100 ppm TWA	150 ppm STEL
Europe:	50 ppm TWA (pure); 221 mg/m <sup>3</sup> TWA (pure)	100 ppm STEL (pure); 442 mg/m <sup>3</sup> STEL (pure)
	Possibility of significant uptake through the skin	
OSHA (US):	100 ppm TWA; 435 mg/m <sup>3</sup> TWA	
Mexico:	100 ppm TWA LMPE-PPT; 435 mg/m <sup>3</sup> TWA LMPE-PPT	
	150 ppm STEL [LMPE-CT]; 655 mg/m <sup>3</sup> STEL [LMPE-CT]	

## Safety Data Sheet

Material Name: Mule-Hide EPDM Bonding Adhesive

MSDS 10-2320

### Biological limit value

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

### Engineering Controls

Provide local exhaust ventilation system. If necessary, use appropriate local exhaust ventilation to keep exposures below the regulated limits.

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

#### Eye/face protection

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

#### Skin Protection

Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Thoroughly clean and dry contaminated clothing before reuse.

#### Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

#### Glove Recommendations

Wear appropriate chemical resistant gloves.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	Yellow liquid	Physical State	liquid
Odor	hydrocarbon	Color	yellow
Odor Threshold	Not available	pH	Not available
Melting Point	-48 °C	Boiling Point	56 - 139 °C
Freezing point	Not available	Evaporation Rate	0.6 - 0.83
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	223 °C	Flash Point	10 °C (CC)
Lower Explosive Limit	1.1 %	Decomposition	Not available
Upper Explosive Limit	12.8 %	Vapor Pressure	6.7 mm Hg (@ 204 °C)
Vapor Density (air=1)	2 - 3.7	Specific Gravity (water=1)	0.84
Water Solubility	Negligible	Partition coefficient: n-octanol/water	Not available
Viscosity	2500 cps	Solubility (Other)	Not available
Density	Not available	Volatility	79 - 83 %

### Other Information

No information available for the product.



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**Section 10 - STABILITY AND REACTIVITY**

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**Reactivity**

No hazard expected.

**Chemical Stability**

Stable under normal conditions of use.

**Possibility of Hazardous Reactions**

Hazardous polymerization will not occur.

**Conditions to Avoid**

Avoid heat, flames, sparks and other sources of ignition.

**Incompatible Materials**

Strong oxidizing materials, acids, bases.

**Hazardous decomposition products**

Oxides of carbon, oxides of nitrogen.

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**Section 11 - TOXICOLOGICAL INFORMATION**

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**Information on Likely Routes of Exposure****Inhalation**

Vapor or mist may cause respiratory tract irritation. May cause central nervous system effects. May cause nausea, dizziness, drowsiness and headache.

**Skin Contact**

Causes skin irritation.

**Eye Contact**

Causes serious eye irritation.

**Ingestion**

May cause gastrointestinal irritation.

**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:

Zinc oxide (1314-13-2)

Oral LD50 Rat >5000 mg/kg

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

Oral LD50 Rat >200 mg/kg

Dermal LD50 Rabbit >5010 mg/kg

Inhalation LC50 Rat >165 mg/L 1 h



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Toluene (108-88-3)

Oral LD50 Rat 2600 mg/kg

Dermal LD50 Rabbit 12,000 mg/kg

Inhalation LC50 Rat 12.5 mg/L 4 h

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

Oral LD50 Mouse 5,000 mg/kg

Dermal LD50 Rabbit 3,000 mg/kg

Acetone (67-64-1)

Inhalation LC50 Rat 50,100 mg/m<sup>3</sup> 8 h

Xylenes (o-, m-, p- isomers) (1330-20-7)

Oral LD50 Rat 3500 mg/kg

Dermal LD50 Rabbit >4350 mg/kg

Inhalation LC50 Rat 29.08 mg/L 4 h

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

### Immediate Effects

Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Central nervous system damage, kidney damage, liver damage, respiratory system damage, nervous system effects.

### Delayed Effects

May cause respiratory irritation, central nervous system, kidneys, nervous system, blood. liver.

### Irritation/Corrosivity Data

Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation.

### Respiratory Sensitization

No information available for the product.

### Dermal Sensitization

No information available for the product.

### Component Carcinogenicity

<b>Polychloroprene</b>	Proprietary
IARC:	Supplement 7 [1987]; Monograph 19 [1979](Group 3 (not classifiable))
<b>Magnesium oxide (MgO)</b>	1309-48-4
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
<b>Toluene</b>	108-88-3



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ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999]; Monograph 47 [1989](Group 3 (not classifiable))
Acetone	67-64-1
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
Xylenes (o-, m-, p- isomers)	1330-20-7
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999]; Monograph 47 [1989](Group 3 (not classifiable))

### Germ Cell Mutagenicity

May cause genetic defects.

### Reproductive Toxicity

May damage fertility or the unborn child.

### Specific Target Organ Toxicity - Single Exposure

Central nervous system, kidney, liver, respiratory system. nervous system.

### Specific Target Organ Toxicity - Repeated Exposure

Central nervous system, kidney, nervous system, respiratory system, blood, liver.

### Aspiration hazard

Aspiration Hazard. Aspiration into the lungs may cause damage. May be fatal if swallowed and enters airways.

### Medical Conditions Aggravated by Exposure

No data available.

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## Section 12 - ECOLOGICAL INFORMATION

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### Ecotoxicity

No additional information available.

### Component Analysis - Aquatic Toxicity

Toluene	108-88-3
Fish:	LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1 day old); LC50 96 h Pimephales promelas 12.6 mg/L [static];

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	LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oryzias latipes 54 mg/L [static]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static]; LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [static] EPA; EC50 48 h Daphnia magna 11.5 mg/L IUCLID
<b>Solvent naphtha, petroleum, light aliphatic</b>	64742-89-8
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4,700 mg/L IUCLID
<b>Acetone</b>	67-64-1
Fish:	LC50 96 h Oncorhynchus mykiss 4.74 - 6.33 mL/L; LC50 96 h Pimephales promelas 6,210 – 8,120 mg/L [static]; LC50 96 h Lepomis macrochirus 8,300 mg/L
Invertebrate:	EC50 48 h Daphnia magna 10,294 – 17,704 mg/L [static] EPA; EC50 48 h Daphnia magna 12,600 – 12,700 mg/L IUCLID
<b>Xylenes (o-, m-, p- isomers)</b>	1330-20-7
Fish:	LC50 96 h Pimephales promelas 13.4 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L [static]; LC50 96 h Oncorhynchus mykiss 13.5 - 17.3 mg/L; LC50 96 h Lepomis macrochirus 13.1 - 16.5 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 19 mg/L; LC50 96 h Lepomis macrochirus 7.711 - 9.591 mg/L [static]; LC50 96 h Pimephales promelas 23.53 - 29.97 mg/L [static]; LC50 96 h Cyprinus carpio 780 mg/L [semi-static]; LC50 96 h Cyprinus carpio >780 mg/L; LC50 96 h Poecilia reticulata 30.26 - 40.75 mg/L [static]



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Material Name: Mule-Hide EPDM Bonding Adhesive

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Algae:	EC50 72 h Pseudokirchneriella subcapitata 11 mg/L IUCLID (related to Aromatic hydrocarbons, C7-12, C8-rich)
Invertebrate:	EC50 48 h water flea 3.82 mg/L; LC50 48 h Gammarus lacustris 0.6 mg/L

### Persistence and Degradability

No data available.

### Bioaccumulative Potential

No data available.

### Mobility

No data available.

### Other Toxicity

No information available for the product.

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## Section 13 - DISPOSAL CONSIDERATIONS

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### Disposal Methods

Dispose in accordance with all applicable regulations.

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## Section 14 - TRANSPORT INFORMATION

---

### US DOT Information:

**Shipping Name:** Adhesive

**Hazard Class:** 3

**UN/NA #:** UN1133

**Packing Group:** II

**Required Label(s):** 3

### TDG Information:

**Shipping Name:** Adhesive

**Hazard Class:** 3

**UN#:** UN1133

**Packing Group:** II

**Required Label(s)**

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## Section 15 - REGULATORY INFORMATION

---

### U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

<b>Toluene</b>	108-88-3
<b>SARA 313:</b>	1 % de minimis concentration
<b>CERCLA:</b>	1,000 lb final RQ; 454 kg final RQ



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Acetone	67-64-1
CERCLA:	5,000 lb final RQ; 2,270 kg final RQ
Xylenes (o-, m-, p- isomers)	1330-20-7
SARA 313:	1 % de minimis concentration
CERCLA:	100 lb final RQ; 45.4 kg final RQ
TSCA 12b:	Section 4 , 1 % de minimus concentration (related to Hydrocarbons, C>4)

### SARA Section 311/312 (40 CFR 370 Subparts B and C)

**Acute Health:** Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** 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
Magnesium oxide (MgO)	1309-48-4	Yes	Yes	Yes	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes	Yes	Yes
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes

### The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects

Toluene	108-88-3
Repro/Dev. Tox	developmental toxicity , initial date 1/1/91
	female reproductive toxicity , initial date 8/7/09

### Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Magnesium oxide (MgO)	1309-48-4
	1 %

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Toluene	108-88-3
	1 %
Acetone	67-64-1
	1 %

### Component Analysis - Inventory

Polychloroprene (Proprietary)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Magnesium oxide (MgO) (1309-48-4)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Toluene (108-88-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Acetone (67-64-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Xylenes (o-, m-, p- isomers) (1330-20-7)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
No	No	No	No	No	Yes	No	Yes	No	No	No	Yes



## Safety Data Sheet

Material Name: Mule-Hide EPDM Bonding Adhesive

MSDS 10-2320

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### Section 16 - OTHER INFORMATION

---

#### NFPA Ratings

Health: 2 Fire: 3 Reactivity: 0

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

#### Summary of Changes

New 03/15/2015

#### 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; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; 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; LLV - Level Limit Value; 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; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; 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

Reasonable care has been taken in the preparation of this information; however, the manufacturer makes no warranty whatsoever including the warranty of merchantability, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental, consequential, or other such damages resulting from its use or misuse.

#### Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.



(M)SDS Format : ANSI Z400.1-2003 ▼

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## SECTION 1 : IDENTIFICATION

Product Name: **Fiber Glass Insulation Made with PureFiber® Technology Faced Products**

SDS Manufacturer Number: 44964-NAM

Synonyms: Acoustical Backing Board, All Service Faced Duct Wrap, All Service Fiber Glass Duct Wrap, Attic Door Insulator, Attic Hatch Insulator, Attic Scuttle Insulator, Base Cap Roof, R-13 BASEMENT FINISHING SYSTEM™, Batts in Bags, Cathedral Batt Insulation, Cavity Wall, Cold Storage Wall, Curtain Wall 225, Dishwasher, Duct Board, ECOTOUCH, EnDuraCoat, Extended Flange 25, Faced Duct Wrap Insulation, FS 25 Hi-Perm Residential/Commercial Insulation, Insulation Batts, Manufactured Housing Duct Board, Manufactured Housing Insulation, Metal Framing Batts, Metal Framing Insulation, NC Roof, NOISE Stop Blanket, Noise Stop Board, Pink Insulation, Pipe Wrap Insulation, PROPINK Fast Batt®, PINKPLUS®, PSK Duct Wrap, QuietZone® Acoustic Batt, RC Roof Board, Rigid Coated Duct, Roof Insulation, Sonobatts®, SOFTR®, Warm-N-Dri®, ULTRAVANTAGE™ Comfort Touch™, Water Heater Blanket, Wide Flute, YELLOW JACKET® Fiber Glass Insulation, Aislhogar, Aislacustic™, Deco SKY™, RF-3000, RF-3100, Utiliwrap

Product Use/Restriction: Insulation

Manufacturer Name: Owens Corning Insulating Systems, LLC

Address: One Owens Corning Parkway  
Toledo, OH 43659

Website: www.owenscorning.com

Customer Service Phone Number: 1-800-GET-PINK or 1-800-438-7465

Health Issues Information: 1-800-GET-PINK or 1-800-438-7465

Technical Product Information: 1-800-GET-PINK or 1-800-438-7465

Emergency Phone Number: 1-419-248-5330 (after 5pm ET and weekends)

CHEMTREC: 800-424-9300 (24 hours everyday).

Canutec: (613) 996-6666 (Canada 24 hours everyday).

## SECTION 2 : HAZARD(S) IDENTIFICATION

Applies to Product

Emergency Overview:

Exposure to dust may be irritating to eyes, nose, and throat.

Route of Exposure:	Eye contact Skin contact Inhalation
Potential Health Effects:	
Eye:	May cause slight irritation.
Skin:	May cause slight skin irritation.
Inhalation:	May cause irritation of respiratory tract.
Ingestion:	Ingestion of this product is unlikely.
Chronic Health Effects:	There is no known chronic health effect connected with long-term use or contact with this product.
Aggravation of Pre-Existing Conditions:	Chronic respiratory or skin conditions may temporarily worsen from exposure to this product.

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### SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

---

Chemical Name	CAS#	Ingredient Percent	EC Num.
Fiber Glass (Wool)	65997-17-3	85 - 100 by weight	266-046-0
Cured Binder	N/A	0 - 15 by weight	
Asphalt, Oxidized (Facing Adhesive)	64742-93-4	1 - 5% by weight	
Non-Hazardous Statement:	The remaining components of this product are non-hazardous or are in a small enough quantity as to not meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product.		

---

### SECTION 4 : FIRST AID MEASURES

---

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Do not rub or scratch eyes. If eye irritation persists, consult a specialist.
Skin Contact:	Wash off immediately with soap and cold water. DO NOT use warm water because this will open up the pores of the skin, which will cause further penetration of the fibers. Use a wash cloth to help remove fibers. DO NOT rub or scratch affected areas. Remove contaminated clothing. If irritation persists get medical attention. Never use compressed air to remove fibers from the skin. If fibers are seen penetrating from the skin, the fibers can be removed by applying and removing adhesive tape so that the fibers adhere to the tape and are pulled out of the skin.
Inhalation:	Move to fresh air. If symptoms persist, call a physician.
Ingestion:	Accidental ingestion of this material is unlikely. If this does occur, watch person for several days to make sure intestinal blockage does not occur. Rinse mouth with water and drink water to remove fibers from the throat. If symptoms persist, call a physician.
Note to Physicians:	Treat symptomatically.

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### SECTION 5 : FIRE FIGHTING MEASURES

---

Flammable Properties:	Non Flammable.
Flash Point:	None.
Flash Point Method:	Not applicable.
Lower Flammable/Explosive Limit:	Not applicable.
Upper Flammable/Explosive Limit:	Not applicable.
Fire Fighting Instructions:	WARNING: This facing will burn. Do not leave exposed. Facing must be installed in substantial contact with an approved ceiling, floor or wall material. Keep open flame and other heat sources away from facing. Do not place

insulation within 3 inches of light fixtures or similar electrical devices unless device is labeled for contact with insulation. Use only unfaced insulation between wood framing and masonry chimneys. Do not use insulation in spaces around metal chimneys, fireplaces, or flues. Unfaced insulation is considered non-combustible by model building codes. See package for warnings, fire hazard and installation instructions, or call 1-800-GET PINK.

Extinguishing Media:	dry chemical foam. carbon dioxide (CO <sub>2</sub> ). water fog
Protective Equipment:	Wear self-contained breathing apparatus (SCBA) and full fire fighting protective gear.
Unusual Fire Hazards:	Hydrogen chloride may be released from the PVC barrier and vinyl facings during a fire.
Hazardous Combustion Byproducts:	Carbon monoxide. Carbon dioxide. Ammonia. Other undetermined compounds could be released in small quantities.
Universal Fire And Explosion Hazards:	Not available.

---

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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Personnel Precautions:	Avoid contact with skin and eyes.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so.

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## SECTION 7 : HANDLING and STORAGE

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Handling:	Avoid dust formation. Do not breathe dust. Wear personal protective equipment.
Storage:	Keep product in its packaging until use to minimize potential dust generation. Product should be kept dry and undercover.
Hygiene Practices:	Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

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## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

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Engineering Controls:	Provide local exhaust and/or general ventilation to maintain exposure below regulatory and recommended limits. Dust collection system must be used in transferring operations, cutting or machining or other dust generating processes, such as using power tools. Vacuum or wet clean-up methods should be used.
Eye/Face Protection:	Safety glasses with side-shields.
Skin Protection Description:	Protective gloves. Long sleeved shirt and long pants.
Respiratory Protection:	When workers are facing airborne particulate/dust concentrations above the exposure limit they must use appropriate certified respirators. A properly fitted NIOSH approved disposable N 95 type dust respirator or better is recommended.
Other Protective:	When the temperature of the surface being insulated exceeds 250°F (121°C), including initial startup, the binder in these products may undergo various degrees of decomposition depending on the temperature in the application. The need for respiratory protection will vary according to the airborne concentration of the decomposition products released and accumulated in the area. Wear the appropriate respiratory protection according to the conditions and exposure levels in the area.

### EXPOSURE GUIDELINES

Ingredient	Guideline OSHA	Guideline ACGIH	Ontario Canada	Mexico	
Fiber Glass (Wool)	PEL-TWA: 1 f/cc (Respirable )	TLV-TWA: 1 f/cc (Respirable)	TWAEV-TWA: 0.05 mg/m <sup>3</sup> or 1 f/cc STEL: 0.6 mg/m <sup>3</sup>	TWA: 0.15 mg/m <sup>3</sup>	

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## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

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Physical State Appearance: Fibrous.

Odor: organic.

Boiling Point: No Data

Melting Point: No Data

Specific Gravity: No Data

Solubility: Insoluble. in water.

Vapor Density: No Data

Vapor Pressure: No Data

Evaporation Rate: No Data

pH: No Data

Viscosity: Not applicable.

Flash Point: None.

Flash Point Method: Not applicable.

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## SECTION 10 : STABILITY and REACTIVITY

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Chemical Stability: Stable under normal conditions.

Hazardous Polymerization: Hazardous polymerization does not occur.

Conditions to Avoid: None expected

Incompatible Materials: No materials to be especially mentioned.

Special Decomposition Products: See Section 5 of MSDS for hazardous decomposition products during a fire.

---

## SECTION 11 : TOXICOLOGICAL INFORMATION

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Carcinogens:							
	ACGIH	NIOSH	OSHA	IARC	NTP		MEXICO
<b>Fiber Glass (Wool)</b>	A3 Animal Carcinogen	No Data	No Data	Group 3 - Not Classifiable as to its Carcinogenicity to Humans.	Biosoluble glass wool is not considered to be carcinogenic.		A3 Animal Carcinogen
<b>Cured Binder</b>	No Data	No Data	No Data	No Data	No Data		No Data
<b>Asphalt, Oxidized (Facing Adhesive)</b>	A4 Not Classifiable as a Human Carcinogen	No Data	No Data	No Data	No Data		A4 Not Classifiable as a Human Carcinogen

### Applies to Product :

Sensitization: No information available.

Mutagenicity: No information available.

Reproductive Toxicity: No information available.

Teratogenicity: No information available.

Neurological Effects: No information available.

### Fiber Glass (Wool) :

Chronic Effects: In June 2011, The National Toxicology Program (NTP) removed biosoluble glass wool fibers from its list of possible carcinogens used for home and building insulation. In October 2001, the International Agency for Research on Cancer (IARC) classified fiber glass wool as Group 3, "not classifiable as to its carcinogenicity to humans". The 2001 decision was based on human studies and animal research that have not shown an association between inhalation exposure to dust from fiber glass wool and the development of respiratory disease.

---

## SECTION 12 : ECOLOGICAL INFORMATION

**Applies to Product :**

Ecotoxicity: This material is not expected to cause harm to animals, plants or fish.

Biodegradation: Not available.

Bioaccumulation: Not available.

**SECTION 13 : DISPOSAL CONSIDERATIONS****Applies to Product :**

Waste Disposal: Dispose of in accordance with Local, State, Federal and Provincial regulations.

RCRA Number: No EPA Waste Numbers are applicable for this product's components.

**SECTION 14 : TRANSPORT INFORMATION**

Notes : This product is not regulated for transportation.

**SECTION 15 : REGULATORY INFORMATION****Inventory Status**

	Japan ENCS	EINECS Number	China	South Korea KECL	Australia AICS
Fiber Glass (Wool)	Not listed	266-046-0	Listed	KE-17630	Listed
Cured Binder	Not listed		Not listed	Not listed	Not listed

	Canada DSL	TSCA Inventory Status			
Fiber Glass (Wool)	Listed	Listed			
Cured Binder	Not listed	Not listed			

**Applies to Product :**

Canada WHMIS: Not controlled.

CA PROP 65: The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This product contains chemicals known to the state of California to cause cancer.

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

Section 311/312 Hazard Categories:

Acute Health Hazard:	Yes
Chronic Health Hazard:	No
Risk of Ignition:	No
Sudden Release of Pressure Hazard:	No
Reactive Hazard:	No

Clean Air Act: This product does not contain any Hazardous Air Pollutants (HAPs).

**Fiber Glass (Wool) :**

EC Number: 266-046-0

**State Right To Know**

	RI	MN	IL	PA	MA
Fiber Glass (Wool)	Listed	Listed	Listed	Listed	Listed
Cured Binder		No Data		No Data	No Data

	NJ				
--	----	--	--	--	--

Fiber Glass (Wool)	No Data				
Cured Binder	No Data				

---

**SECTION 16 : ADDITIONAL INFORMATION**

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HMIS Ratings:

HMIS Health Hazard: 1  
HMIS Fire Hazard: 1  
HMIS Reactivity: 0  
HMIS Personal Protection: X

SDS Creation Date: July 10, 2002  
SDS Revision Date: December 06, 2013  
MSDS Revision Notes: "Added Synonym"

Disclaimer: Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

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Speedline® Corporation

# SAFETY DATA SHEET

Date Issued : 06/12/2015

Date Revised : 06/16/2015

## POLYCO ADHESIVE

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Polyco Adhesive**DISTRIBUTOR:**

Speedline Corporation  
6810 Cochran Road  
440-914-1122

**EMERGENCY PHONE:** Chemtel 800-255-3924

**RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE:** Product is an adhesive solvent mixture used to bond PVC plastic. Not intended for any other use or application.

### 2. HAZARDS IDENTIFICATION

#### CLASSIFICATION OF THE CHEMICAL

##### HAZARD CLASS

**FLAMMABLE LIQUIDS:** Category 1.**ACUTE TOXICITY:** 4 (oral).**SKIN CORROSION:** 2.**SERIOUS EYE DAMAGE:** 1.**SKIN SENSITIZATION:** No.**RESPIRATORY SENSITIZATION:** No.**SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:** 3.

#### LABEL ELEMENTS HAZARD

##### PICTOGRAMS:

**SIGNAL WORD:** Danger.

**HAZARD STATEMENT:** Highly flammable liquid and vapor. Causes serious eye irritation. Harmful if swallowed. Harmful if inhaled. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. May cause respiratory irritation. Read entire label carefully before use.

**PREVENTION:** Keep only in original container. Do not eat, drink, or smoke when using this product. Wash hands thoroughly after handling. Do not breathe dusts or mists. Wear protective gloves/protective clothing/eye protection/face protection. Use only with good ventilation.

**RESPONSE:** Eliminate all ignition sources. Avoid breathing vapors. Prevent liquid from entering sewers. Absorb spillage to prevent material damage. If swallowed: Do NOT induce vomiting due to risk of aspiration into lungs. Immediately call a poison center/doctor. If on skin (or hair) wash with soap and water. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if symptoms persist. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a poison center/doctor if symptoms persist.

**STORAGE:** Store in original packaging. Keep containers tightly closed. Store in a well ventilated place.

**DISPOSAL:** Dispose of contents and container in accordance with all local, regional, national, and international regulations. We recommend evaporation of the contents in an outdoor location and recycling of the steel container.



Speedline® Corporation

# SAFETY DATA SHEET

Date Issued : 06/12/2015

Date Revised : 06/16/2015

## POLYCO ADHESIVE

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### MIXTURES

Tetrahydrofuran CAS # 109-99-9 (65-85%)

OSHA PEL 200 PPM

ACGIH TLV 200 PPM

Other recommended limits STEL 250 PPM

The exact percentage of composition has been withheld as a trade secret in accordance with paragraph(i) of 1910.1200.

### 4. FIRST AID MEASURES

#### EMERGENCY AND FIRST AID PROCEDURES:

**EYE:** For contact with eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a poison center/ doctor if symptoms persist.

**SKIN:** For contact with skin (or hair) wash with soap and water.

**INHALATION:** Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if symptoms persist.

**INGESTION:** If swallowed, do NOT induce vomiting due to risk of aspiration into lungs. Immediately call a poison center/doctor.

#### MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

**EYE:** Eye irritant. Symptoms may include discomfort or pain, excessive blinking and tear production, with marked redness and swelling of the conjunctiva.

**SKIN:** Harmful in contact with skin. May cause redness, drying, defatting, and cracking of the skin.

**INHALATION:** May cause drowsiness and dizziness. May cause respiratory irritation. May cause nausea or vomiting.

**INGESTION:** Will cause liver and kidney damage. May cause stomach distress, nausea or vomiting.

#### INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED:

**NOTE TO PHYSICIANS:** Symptoms may not appear immediately.

**SPECIFIC TREATMENTS:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

### 5. FIRE-FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Dry chemical or carbon dioxide (CO<sub>2</sub>). For large fire use alcohol foam. Water spray may be used to cool containers, but may be ineffective in controlling fire.

#### SPECIAL HAZARDS ARISING FROM THE CHEMICAL

**PRODUCTS OF COMBUSTION:** May generate toxic or irritating combustion products.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Fire hazard because of low flash point, high volatility, and heavy vapor.

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:** Keep upwind of fire. Wear full firefighting turn-out gear (full bunker gear) and respiratory protection (SCBA).

### 6. ACCIDENTAL RELEASE MEASURES

**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.

#### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP

**METHODS FOR CONTAINMENT:** Use polyethylene bag or containment drum or pail to contain spill. Provide ventilation. Dike area to prevent spreading. Use appropriate Personal Protective Equipment (PPE).

**METHODS FOR CLEANING UP:** Absorb spillage in non-combustible absorbent such as sand or vermiculite, and place in a suitable container for disposal. Allow spilled material to evaporate, providing adequate ventilation and eliminating all ignition sources.





Speedline® Corporation

# SAFETY DATA SHEET

Date Issued : 06/12/2015

Date Revised : 06/16/2015

## POLYCO ADHESIVE

### 7. HANDLING AND STORAGE

#### PRECAUTIONS FOR SAFE HANDLING

**CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:** Store in original packaging. Keep containers tightly closed. Store in a well ventilated place.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### CONTROL PARAMETERS

**Tetrahydrofuran** CAS # 109-99-9

OSHA PEL 200 PPM

ACGIH TLV 200 PPM

Other recommended limits STEL 250 PPM

**EXPOSURE CONTROLS:** Use ventilation adequate to keep exposure below recommended exposure limits.

#### INDIVIDUAL PROTECTIVE MEASURES

**RESPIRATORY PROTECTION (SPECIFY TYPE):** None required with normal ventilation. If using where ventilation cannot be supplied, a half-mask respirator with an organic-vapors cartridge is recommended.

**PROTECTIVE GLOVES:** Rubber or PVA.

**EYE PROTECTION:** Chemical safety goggles to prevent splashing in eyes.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Rubber, polyethylene, or Tyvek apron.

**WORK/HYGIENE PRACTICES:** Use good industrial hygiene practice.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** White or clear liquid. Characteristic ether-like solvent odor.

**COLOR:** White or clear.

**ODOR:** Pungent ether-like solvent odor.

**ODOR THRESHOLD:** 25 PPM.

**PHYSICAL STATE:** Liquid.

**pH:** 7.

**MELTING POINT/FREEZING POINT:** Freeze point is below -40°C.

**BOILING POINT:** 65.5 - 66.5°C.

**FLASH POINT (METHOD USED):** -22°C tag closed cup.

**EVAPORATION RATE (BUTYL ACETATE=1):** 5.5 to 8.

**FLAMMABLE LIMITS AT 25 C:** LEL 1.8% UEL 11.8%.

**VAPOR PRESSURE (MM HG):** 190.

**VAPOR DENSITY (AIR =1):** 2.5.

**RELATIVE DENSITY/SPECIFIC GRAVITY (H<sub>2</sub>O=1):** Approximately 0.9.

**SOLUBILITY:** Miscible.

**PARTITION COEFFICIENT:** n-octanol/water: .45.

**AUTO-IGNITION TEMPERATURE:** The product is not self-igniting.

**DECOMPOSITION TEMPERATURE:** 110°C to 400°C.

**VISCOSITY:** Varies from 100 to 1600 cps depending on formula.

**PERCENT VOLATILE, WT. %:** Approximately 85%.

**VOC CONTENT GRAMS/LITER:** 510.



Speedline® Corporation

## SAFETY DATA SHEET

Date Issued : 06/12/2015

Date Revised : 06/16/2015

### POLYCO ADHESIVE

#### 10. STABILITY AND REACTIVITY

**REACTIVITY:** Reacts with oxidizing agents.

**CHEMICAL STABILITY:** The product is chemically stable.

**POSSIBILITY OF HAZARDOUS REACTIONS:** No dangerous reaction known under conditions of normal use.

**CONDITIONS TO AVOID:** Avoid all sources of ignition: heat sparks, open flame. Avoid electrostatic discharge.

**INCOMPATIBLE MATERIALS:** Aluminum lithium hydride, alkaline-earth metal hydroxides, any oxidizer.

**HAZARDOUS DECOMPOSITION PRODUCTS:** No hazardous decomposition products if stored and handled as prescribed/indicated.

#### 11. TOXICOLOGICAL INFORMATION

##### INFORMATION ON TOXICOLOGICAL EFFECTS

**LIKELY ROUTES OF EXPOSURE:** Skin contact, skin absorption, eye contact, inhalation, and ingestion.

**ACUTE TOXICITY: Oral:** LD 50. **Rat** 1650 mg/kg.

**INHALATION:** LC 50 Rat >14.7 mg/l.

**DERMAL:** LD 50 Rat >2000 mg/kg.

**IRRITATION/CORROSION:** Rabbit Draize Test - Non-irritant.

**SKIN:** Rabbit Draize Test - Non-irritant.

**EYE:** Rabbit Draize Test - Risk of serious damage to eyes.

**SENSITIZATION:** Mouse Local Lymph Node Assay (LLNA) - Non-sensitizing OECD Guideline 429.

**ASPIRATION HAZARD:** Possible severe lung damage and death if aspirated into lungs.

##### DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

**SKIN CORROSION/IRRITATION:** Causes skin irritation.

**RESPIRATORY SENSITIZATION:** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**SKIN SENSITIZATION:** Non-sensitizing.

**STOT-SINGLE EXPOSURE:** May cause respiratory irritation. May cause drowsiness, dizziness, or nausea.

**CHRONIC HEALTH EFFECTS:** Based on available data, the classification criteria are not met.

**CARCINOGENICITY:** Although rodent testing has shown a tumorigenic effect, these results are thought to be due to a rodent specific liver effect that is not relevant to humans.

**GERM CELL MUTAGENICITY:** Ames test is negative.

**STOT-REPEATED EXPOSURE:** Based on available data, the classification criteria are not met.

**ASPIRATION HAZARD:** Possible severe lung damage and death if aspirated into lungs.

**TOXICOLOGICALLY SYNERGISTIC MATERIALS:** Not available.

**OTHER INFORMATION:** Not available.

#### 12. ECOLOGICAL INFORMATION

**ECOTOXICITY:** May cause long term adverse effect in the aquatic environment.

**PERSISTENCE AND DEGRADABILITY:** Not available.

**BIOACCUMULATIVE POTENTIAL:** Because of the n-octanol/water distribution coefficient (log Pow), accumulation in organisms is not to be expected.

**MOBILITY IN SOIL:** Not available.

**OTHER ADVERSE EFFECTS:** Not available.



Speedline® Corporation

## SAFETY DATA SHEET

Date Issued : 06/12/2015

Date Revised : 06/16/2015

### POLYCO ADHESIVE

#### 13. DISPOSAL CONSIDERATIONS

Dispose of contents and container in accordance with all local, regional, national, and international regulations. We recommend evaporation of the contents in an outdoor location and recycling of the steel container.

#### 14. TRANSPORT INFORMATION

##### US DEPARTMENT OF TRANSPORTATION

**HAZARD CLASS:** 3.**SHIPPING NAME:** Flammable Liquid.**ID NUMBER:** UN1133.**PACKING GROUP:** II.**EXEMPTIONS:** 1 Liter or smaller containers ship as Limited Quantity / ORM-D. No label or placard required. International Limited Quantity Label may also be used.

##### IMDG

**HAZARD CLASS:** 3.**SHIPPING NAME:** Flammable Liquid.**ID NUMBER:** UN1133.**PACKING GROUP:** II.**MARINE POLLUTANT:** No.

##### AIR TRANSPORT IATA/ICAO

**HAZARD CLASS:** 3.**SHIPPING NAME:** Flammable Liquid.**ID NUMBER:** UN1133.**PACKING GROUP:** II.

#### 15. REGULATORY INFORMATION

**REGISTRATION STATUS:** All components of this product are registered under TSCA.**CERCLA RQ:** 1000 lbs CAS Number 109-99-9 Tetrahydrofuran.**REPORTABLE QUANTITY FOR RELEASE:** 1000 lbs.

#### 16. OTHER INFORMATION

##### HMIS:

**H:** 2**F:** 4**R:** 1**PP:** B

##### NFPA:

**H:** 2**F:** 4**R:** 1

## PVC Pipe Fitting Covers & Jacketing

Version 1.1

Revision Date 09/08/2015

Print Date 09/24/2015

### SECTION 0. GENERAL INFORMATION

This item meets the definition of article in the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : Ceel-Co® PVC Fitting Covers and Jacketing, Ceel-Co® 550 PVC Fitting Covers and Jacketing, Zeston® PVC Fitting Covers and Jacketing, Zeston® 2000 Series PVC Fitting Covers and Jacketing, Z-Tape

Manufacturer or supplier's details

Company : Johns Manville  
Address : P.O. Box 5108  
Denver, CO USA 80127  
Telephone : 303-978-2000 8:00AM-5:00PM M-F  
Emergency telephone number : 1-800-424-9300 (Chemtrec, in English)

Prepared by : productsafety@jm.com

### SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Not a hazardous substance or mixture.

**Other hazards**

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature**

This item meets the definition of article in the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 4. FIRST AID MEASURES

General advice : Do not leave the victim unattended.

If inhaled : If unconscious place in recovery position and seek medical advice.  
If symptoms persist, call a physician.

In case of eye contact : Remove contact lenses.  
Protect unharmed eye.

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If eye irritation persists, consult a specialist.

If swallowed

: Keep respiratory tract clear.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

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### SECTION 5. FIREFIGHTING MEASURES

Specific extinguishing  
methods

: None known.

Further information

: Standard procedure for chemical fires.

Special protective equipment  
for firefighters

: Wear self-contained breathing apparatus for firefighting if  
necessary.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions,  
protective equipment and  
emergency procedures

: Avoid dust formation.

Methods and materials for  
containment and cleaning up

: Pick up and arrange disposal without creating dust.  
Sweep up and shovel.  
Keep in suitable, closed containers for disposal.

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### SECTION 7. HANDLING AND STORAGE

Advice on safe handling

: For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the  
application area.

Conditions for safe storage

: Keep in a dry, cool place.

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### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

#### Personal protective equipment

Respiratory protection

: No personal respiratory protective equipment normally  
required.

Hand protection

Remarks

: For prolonged or repeated contact use protective gloves.

Eye protection

: Safety glasses

Skin and body protection

: If used and stored as directed, no special protective  
equipment is necessary.

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Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
Written instructions for handling must be available at the work place.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : solid  
Colour : various

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No decomposition if stored and applied as directed.  
Chemical stability : No decomposition if stored and applied as directed.  
Possibility of hazardous reactions : Stable under recommended storage conditions.  
No hazards to be specially mentioned.  
Conditions to avoid : No data available

**SECTION 11. TOXICOLOGICAL INFORMATION****Further information**

No data available

**SECTION 12. ECOLOGICAL INFORMATION****Further information**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Packaging that cannot be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

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**SECTION 14. TRANSPORT INFORMATION****International transport regulations**

These products are not classified as dangerous goods according to international transport regulations.

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**SECTION 15. REGULATORY INFORMATION****TSCA list****California Prop 65**

: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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**SECTION 16. OTHER INFORMATION****Further information**

Prepared by productsafety@jm.com

The information provided in this Safe Use Instruction (SUI) 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 emergency response and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

# SAFETY DATA SHEET

**Date Issued :** 05/29/2012  
**Date Revised :** 09/30/2015

## Speedline PVC Fitting Covers and Jacketing

### 1. COMPANY IDENTIFICATION

**MANUFACTURER****Speedline Corporationg**

6810 Cochran Road

Solon, OH 44139

**EMERGENCY TELEPHONE****CHEM-TEL:** 800-255-3924**INFORMATION PHONE:** (440) 914-9334

### 2. PRODUCT IDENTIFICATION

**PRODUCT NAME:** Speedline PVC Fitting Covers and Jacketing**CHEMICAL NAME:** Mixture.**CAS-NO.:** Mixture.**PRODUCT USE:** Industrial Applications.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
8-Oxa-3,5-dithia-4-stannatetradecanoic acid, 10-ethyl-4,4-dimethyl-7-oxo-, 2-ethylhexyl ester	57583-35-4	1 - 5
Stannane, methyltris(2-ethylhexyloxycarbonylmethylthio)-	57583-34-3	1 - 5
Calcium stearate	1592-23-0	1 - 5
Paraffin waxes and Hydrocarbon waxes	8002-74-2	1 - 5
Calcium carbonate	471-34-1	5 - 10

### 4. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

**THIS MIXTURE HAS NOT BEEN EVALUATED AS A WHOLE. ALL INGREDIENTS ARE BOUND AND POTENTIAL FOR HAZARDOUS EXPOSURE AS SHIPPED IS MINIMAL. HOWEVER, SOME VAPORS MAY BE RELEASED UPON HEATING OR PROCESSING. THE END-USER (FABRICATOR) MUST TAKE THE NECESSARY PRECAUTIONS (MECHANICAL VENTILATION, RESPIRATORY PROTECTION, ETC.) TO PROTECT EMPLOYEES FROM EXPOSURE. SEE SECTIONS 8 AND 11 FOR SPECIAL PRECAUTIONS. MAY EMIT HYDROGEN CHLORIDE (HCL) OR CARBON MONOXIDE (CO) UNDER FIRE CONDITIONS.**

**POTENTIAL HEALTH EFFECTS****ROUTES OF EXPOSURE:** Inhalation, ingestion, skin contact.**ACUTE EXPOSURE:****INHALATION:** Resin particles, like other inert materials, can be mechanically irritating.**INGESTION:** May be harmful if swallowed.**EYES:** Resin particles, like other inert materials, are mechanically irritating to eyes.**SKIN:** Experience shows no unusual dermatitis hazard from routine handling.**CHRONIC EXPOSURE:** Refer to Section 11 for Toxicological Information.**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None known.



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### Speedline PVC Fitting Covers and Jacketing

#### 5. FIRST AID MEASURES

**INHALATION:** Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.

**INGESTION:** Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.

**EYES:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.

**SKIN:** Wash off with soap and plenty of water. If skin irritation persists seek medical attention.

#### 6. FIRE FIGHTING MEASURES

**FLASH POINT:** Not applicable.

**FLAMMABLE LIMITS:**

**UPPER EXPLOSION LIMIT:** Not applicable.

**LOWER EXPLOSION LIMIT:** Not applicable.

**AUTOIGNITION TEMPERATURE:** Not applicable.

**SUITABLE EXTINGUISHING MEDIA:** Carbon dioxide blanket, water spray, dry powder, foam.

**SPECIAL FIRE FIGHTING PROCEDURES:** Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.

**UNUSUAL FIRE/EXPLOSION HAZARDS:** May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), other hazardous materials, and smoke are all possible.

#### 7. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.

**ENVIRONMENTAL PRECAUTIONS:** Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.

**METHODS FOR CLEANING UP:** Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section 13 of this SDS for proper disposal methods.

#### 8. HANDLING AND STORAGE

**HANDLING:** Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials.

**STORAGE:** Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

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### Speedline PVC Fitting Covers and Jacketing

#### 9. EXPOSURE CONTROLS/PERSONAL PROTECTION

**RESPIRATORY PROTECTION:** No personal respiratory protective equipment normally required. If dusty conditions occur wear appropriate respiratory protection.

**EYE/FACE PROTECTION:** Safety glasses with side-shields.

**HAND PROTECTION:** Protective gloves.

**SKIN AND BODY PROTECTION:** Long sleeved clothing.

**ADDITIONAL PROTECTIVE MEASURES:** Safety shoes.

**GENERAL HYGIENE CONSIDERATIONS:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. This product may contain residual vinyl chloride monomer (VCM) (CAS number 75-01-4) below 8.5 ppm (0.00085%). It is unlikely, under normal working conditions with adequate ventilation, that the exposure limits will be exceeded for residual VCM. However, the user should take the necessary precautions (e.g. mechanical ventilation, local exhaust ventilation, air-monitoring, respiratory protection, etc.) to ensure airborne levels of any vapors including VCM or dusts that may be released during heating or processing are below regulated levels.

**ENGINEERING MEASURES:** Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

#### EXPOSURE LIMITS:

Components	Value	Exposure Time	Exposure Type	List:
Calcium stearate	10 mg/m3	Time Weighted Average (TWA):		ACGIH
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	OSHA Z1A
	15 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
	5 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	10 mg/m3	Recommended exposure limit (REL):	Total	NIOSH
Paraffin waxes and Hydrocarbon waxes	2 mg/m3	Time Weighted Average (TWA):	Fume.	ACGIH
	2 mg/m3	Recommended exposure limit (REL):	Fume.	NIOSH
	2 mg/m3	Time Weighted Average (TWA):	Fume.	OSHA Z1A
	2 mg/m3	Time Weighted Average (TWA):	Fume.	MX OEL
	6 mg/m3	Short Term Exposure Limit (STEL):	Fume.	MX OEL

## SAFETY DATA SHEET

**Date Issued :** 05/29/2012  
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### Speedline PVC Fitting Covers and Jacketing

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#### 10. PHYSICAL AND CHEMICAL PROPERTIES

**FORM:** Solid.

**APPEARANCE:** Pellets, powder.

**COLOUR:** NO PIGMENT.

**ODOR:** Very faint.

**MELTING POINT/RANGE:** Not determined.

**BOILING POINT:** Not applicable.

**WATER SOLUBILITY:** Insoluble.

**EVAPORATION RATE:** Not applicable.

**SPECIFIC GRAVITY:** Not determined.

**BULK DENSITY:** Not established.

**VAPOUR PRESSURE:** Not applicable.

**VAPOUR DENSITY:** Not applicable.

**PH:** Not applicable.

#### 11. STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.

**INCOMPATIBLE MATERIALS:** Incompatible with strong acids and oxidizing agents. Avoid contact with acetal homopolymers and acetal copolymers during processing.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), other hazardous materials, and smoke are all possible. Prolonged heating (approximately 30 minutes or more) above 392°F (200°C) or short term heating at 482°F (250°C) may result in product decomposition and evolution of carbon monoxide and hydrogen chloride.

## SAFETY DATA SHEET

Date Issued : 05/29/2012  
Date Revised : 09/30/2015

### Speedline PVC Fitting Covers and Jacketing

#### 12. TOXICOLOGICAL INFORMATION

THIS MIXTURE HAS NOT BEEN EVALUATED AS A WHOLE FOR HEALTH EFFECTS. EXPOSURE EFFECTS LISTED ARE BASED ON EXISTING HEALTH DATA FOR THE INDIVIDUAL COMPONENTS WHICH COMPRISE THE MIXTURE.

##### TOXICITY OVERVIEW

THIS PRODUCT CONTAINS THE FOLLOWING COMPONENTS WHICH IN THEIR PURE FORM HAVE THE FOLLOWING CHARACTERISTICS:

CAS-No.	Chemical Name	Effect	Target Organ
57583-35-4	8-Oxa-3,5-dithia-4-stannatetradecanoic acid, 10-ethyl-4,4-dimethyl-7-oxo-, 2-ethylhexyl ester	Irritant	Eyes, skin.
57583-34-3	Stannane, methyltris(2-ethylhexyloxycarbonylmethylthio)-	Irritant	Eyes, skin.
8002-74-2	Paraffin waxes and Hydrocarbon waxes	Systemic effects	Eyes, skin, respiratory system.
471-34-1	Calcium carbonate	Irritant	Eyes, Skin.

##### LC50 / LD50

THIS PRODUCT CONTAINS THE FOLLOWING COMPONENTS WHICH, IN THEIR PURE FORM, HAVE THE FOLLOWING TOXICITY DATA:

CAS-No.	Chemical Name	Route	Value	Species
57583-34-3	Stannane, methyltris(2-ethylhexyloxycarbonylmethylthio)-	Oral LD50	920 mg/kg	rat
1592-23-0	Calcium stearate	Oral LD50	> 10 gm/kg	rat
8002-74-2	Paraffin waxes and Hydrocarbon waxes	Oral LD50	> 2,000 mg/kg	rat
471-34-1	Calcium carbonate	Oral LD50	6,450 mg/kg	rat, mouse

#### 13. ECOLOGICAL INFORMATION

**PERSISTENCE AND DEGRADABILITY:** Not readily biodegradable.

**ENVIRONMENTAL TOXICITY:** Adverse ecological impact is not known or expected under normal use.

**BIOACCUMULATION POTENTIAL:** No data available.

**ADDITIONAL ADVICE:** Not applicable.

#### 14. DISPOSAL CONSIDERATIONS

**PRODUCT:** Like most thermoplastic plastics the product can be recycled. Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

**CONTAMINATED PACKAGING:** Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

#### 15. TRANSPORT INFORMATION

**U.S. DOT CLASSIFICATION:** Not regulated for transportation.

**ICAO/IATA:** Not regulated for transportation.

**IMO/IMDG (MARITIME):** Not regulated for transportation.

## SAFETY DATA SHEET

**Date Issued :** 05/29/2012  
**Date Revised :** 09/30/2015

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### Speedline PVC Fitting Covers and Jacketing

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#### 16. REGULATORY INFORMATION

##### US REGULATIONS:

**OSHA STATUS:** Classified as hazardous based on components.

**TSCA STATUS:** All components of this product are listed on or exempt from the TSCA Inventory.

**US. EPA CERCLA HAZARDOUS SUBSTANCES (40 CFR 302):** Not applicable.

**CALIFORNIA PROPOSITION 65:** Not applicable.

##### SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation.

##### SARA TITLE III SECTION 313 TOXIC CHEMICALS:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

##### CANADIAN REGULATIONS:

**NATIONAL POLLUTANT RELEASE INVENTORY (NPRI):** Not applicable.

**WHMIS CLASSIFICATION:** D2B.

**WHMIS INGREDIENT DISCLOSURE LIST:** CAS-No.: 57583-34-3.

**DSL:** All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

##### NATIONAL INVENTORIES:

**AUSTRALIA AICS:** Not determined.

**CHINA IECS:** Not determined.

**EUROPE EINECS:** Listed.

**JAPAN ENCS:** Not determined.

**KOREA KECI:** Not determined.

**PHILIPPINES PICCS:** Not determined.

#### 16. OTHER INFORMATION

THE INFORMATION PROVIDED IN THIS SAFETY DATA SHEET IS CORRECT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF AT THE DATE OF ITS PUBLICATION. THE INFORMATION GIVEN IS DESIGNED ONLY AS A GUIDANCE FOR SAFE HANDLING, USE, PROCESSING, STORAGE, TRANSPORTATION, DISPOSAL AND RELEASE AND IS NOT TO BE CONSIDERED A WARRANTY OR QUALITY SPECIFICATION. THE INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS, UNLESS SPECIFIED IN THE TEXT.

SAFETY DATA SHEET, revised Dec 1, 2014

**A-300WH PVC Adhesive White**

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**1. PRODUCT AND COMPANY INFORMATION**

Trade name	PVC Adhesive White
Product codes	ZGA-300WH, A300WH
Chemical family	Pigmented resin solution
Intended use	Adhesive for welding of PVC
<hr/>	
Company	Colorado Paint (a Swarco Company) 4747 Holly Street Denver, CO 80216; U. S. A.
<hr/>	
Telephone	+1 303-388-9265
Web site	www.swarco.com/americas
Emergency (Chemtrec; 24 h)	1-800-424-9300 (U. S. A. and Canada)

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**2. HAZARD IDENTIFICATION****Emergency Overview****OSHA Hazards**

Flammable Liquid, Target Organ Effect, Irritant.

**Target Organs**

Central nervous system, Liver, Kidney.

**GHS Classification**

Flammable liquids (Category 2)

Acute toxicity, Oral (Category 4)

Acute toxicity, Inhalation (Category 5)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Specific target organ toxicity - single exposure (Category 3)

**GHS Label elements, including precautionary statements**

Pictograms:

**Signal word:** Danger**Hazard statements**

H225 Highly flammable liquid and vapour.

H302 + H333 Harmful if swallowed or if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 + H336 May cause respiratory irritation, dizziness, and drowsiness.

**Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

**A-300WH PVC Adhesive White****HMIS and NFPA Classification:**

	HMIS	NFPA Hazard
Health	2	2
Chronic health hazard	*	--
Flammability	3	3
Reactivity / Physical hazard	--	0
Physical hazard	3	--

**Potential Health Effects**

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness.

**Skin:** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes:** Causes eye irritation.

**Ingestion:** May be harmful if swallowed.

**3. COMPOSITION**

Name	Synonym	CAS	EINECS	Index	Concentration
Tetrahydrofuran	THF, Oxolane	109-99-9	203-726-8	603-025-00-0	50-70%
Poly(vinyl chloride) resin	Modified PVC polymer	Proprietary mixture	n/a	n/a	20-35%
Methyl Ethyl Ketone	Butanone-2	78-93-3	201-159-0	606-021-00-7	10-20%
Titanium Dioxide	Titanium (IV) oxide	13466-67-7	236-675-5	n/a	2-3%

**4. FIRST AID MEASURES****General advice**

Consult a physician. Show this Material Safety Data Sheet to the attending doctor.

**If inhaled**

Move person to fresh air. If not breathing, give artificial respiration. Obtain proper medical attention.

**If on skin**

Wash off with soap and water. Consult a physician if needed.

**In case of an eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes. Seek medical attention.

**If swallowed**

Do not induce vomiting. Rinse mouth with water. Seek immediate medical attention.

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**5. FIRE FIGHTING MEASURES****Suitable extinguishing media**

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide.

For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Special protective equipment for fire fighters**

Wear self-contained breathing apparatus for fire fighting if necessary.

**Hazardous combustion products**

Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides (NO<sub>x</sub>), chlorinated compounds.

**Further information**

Use water spray to cool unopened containers.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate unnecessary personnel to safe areas. Beware of vapors accumulating to form explosive concentrations.

**A-300WH PVC Adhesive White****Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Contain spillage, and then collect with electrically protected equipment and place in container for disposal according to local regulations. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition – NO SMOKING. Take measures to prevent the build up of electrostatic charge.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature is 10-25 °C.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION****Occupational exposure limits**

Name	CAS	OSHA TLV <sup>(1)</sup>	ACGIH TLV <sup>(2)</sup>	NIOSH PEL <sup>(3)</sup>	OSHA STEL <sup>(4)</sup>	EU <sup>(5)</sup>
Methyl ethyl ketone	78-93-3	590	590	590	885	600
	Upper Respiratory Tract irritation. Central Nervous System and Peripheral Nervous System impairment. Substance for which there is a Biological Exposure Index.					
Poly(Vinyl chloride) resin	Proprietary mixture	n/a	n/a	n/a	n/a	n/a
	No occupational exposure limits have been established. Per manufacturer, the resin is 'not hazardous and toxic chemical'.					
Tetrahydrofuran	109-99-9	590	147	735	735	150
	Can be absorbed through skin. There are concerns that dermal absorption will lead to systemic toxicity. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhoea. Central Nervous System impairment. Upper Respiratory Tract irritation. Kidney damage. Confirmed animal carcinogen with unknown relevance to humans. The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histological type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.					
Titanium dioxide	13463-67-7	15	10	Fine particles: 2.4 Ultrafine particles: 0.3	n/a	4
	The established limits are for respirable dust (total dust maximum is 15 mg/m <sup>3</sup> ) only and are meaningless for the paint product as delivered, but apply while sanding or abrading of dried coating. Lower Respiratory Tract irritation. Slight lung fibrosis (carcinogenic in rats). Health Effect: Nuisance particulate, accumulation in lungs. Not classifiable as a human carcinogen. No increase in risk for lung cancer (or any other specific cause of death) among titanium dioxide manufacturing workers.					

(1) Occupational Safety and Health Administration (OSHA); Threshold Limit Value (8-hour time-weighted average) pursuant to (a) for general industry: 29 CFR 1910.1000 Table Z-1, (b) for construction industry: 29 CFR 1926.55 Appendix A, and (c) for maritime industry: 29 CFR 1915.1000 Table Z. (2) American Conference of Governmental Industrial Hygienists; Threshold Limit Value. (3) National Institute for Occupational Safety and Health; Recommended Exposure Limit. (4) OSHA Short Term Exposure Limit (STEL). (5) European Union exposure limit per Directive 98/24/EC, as amended or UK EH40 Occupational Exposure Limit.



**A-300WH PVC Adhesive White**

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**Ventilation**

Use only where adequate ventilation can be maintained. Use explosion-proof exhaust fans when the product is used in enclosed areas.

**Personal protective equipment****Respiratory protection**

A full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges are recommended as a backup to engineering controls.

**Hand protection**

Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good work hygiene practices. The selected protective gloves have to satisfy the specifications of the standard EN 374.

**Eye protection**

Safety glasses with side shields are required. Face shield are recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**

Wear impervious, flame retardant antistatic protective clothing.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash your hands thoroughly. Never intentionally inhale the contents. Use only for the intended purpose.

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**9. PHYSICAL PROPERTIES****Appearance**

Physical state    Liquid  
Color             White  
Odor              Strong, irritating, characteristic of tetrahydrofuran

**Safety data**

Boiling point       >60 °C (solvent data)  
Freezing point      Not available  
Flash point         >-13 °C (solvent data)  
Upper explosion limit    3 vol% (solvent data)  
Lower explosion limit    16 vol% (solvent data)  
Solubility in water      Solvents are soluble  
Vapor pressure       213.3 hPa at 25 °C (solvent data)  
Density              0.8-1.1 g·cm<sup>-3</sup> at 25 °C  
Viscosity             70-95 KU (Stormer, at 25 °C)  
pH                    Not applicable

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**10. STABILITY AND REACTIVITY DATA****Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

Vapours may form explosive mixture with air.

**Conditions to avoid**

Heat, flames, and sparks. Extremes of temperature and direct sunlight.

**Materials to avoid**

Bases, strong acids, oxidizing agents, reducing agents, phosphorous oxychloride.

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides (NO<sub>x</sub>).

**A-300WH PVC Adhesive White****11. TOXICOLOGICAL DATA****Acute toxicity**

Name	NIOSH IDLH (mg/m <sup>3</sup> )	Oral LD <sub>50</sub> (mg/kg) rat	Inhalation LC <sub>50</sub> (rat)	Dermal LD <sub>50</sub> (mg/kg) rabbit
Methyl ethyl ketone	5900	2737	32000 (mouse) 38000 (mammal)	6480 (rabbit)
Poly(vinyl chloride) resin	n/a	n/a	n/a	n/a
Tetrahydrofuran	5877	1650 (rat) 2300 (guinea pig)	61000 (3h) Drowsiness. Lungs Thorax or Respiration	>2000 (rat)
Titanium dioxide	5,000	>10,000	n/a	>10,000

**Prolonged Exposure**

Name	Skin corrosion / irritation	Serious eye damage / irritation	Respiratory or skin sensitization
Methyl ethyl ketone	Rabbit – skin irritation (24h)	No data available	No data available
Poly(vinyl chloride) resin	No data available	No data available	No data available
Tetrahydrofuran	Rabbit – mild skin irritation (Draize test)	Rabbit – risk of serious damage to eyes (Draize test)	Mouse – did not cause sensitization on laboratory animals
Titanium dioxide	Human: Mild skin irritation (3h)	Rabbit: No eye irritation	Will not occur

**Germ cell mutagenicity**

Tetrahydrofuran	In vivo tests did not show mutagenic effects
Titanium dioxide	Genotoxicity in vitro – hamster – ovary: Micronucleus test. Genotoxicity in vitro – hamster – lungs: DNA inhibition. Genotoxicity in vitro – hamster – ovary: Sister Chromatoid exchange. Genotoxicity in vivo – mouse – intraperitoneal: Micronucleus test.
All other ingredients	No data available

**Carcinogenicity**

Methyl ethyl ketone	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Poly(vinyl chloride) resin	Mouse – Implant: Tumorigenic. Equivocal tumorigenic agent by RTECS criteria. Tumors at site or application. This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.
Tetrahydrofuran	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
Titanium dioxide	Rat – inhalation: Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors. Rat – intramuscular: Tumorigenic: Neoplastic by RTECS criteria. Blood: Lymphomas including Hodgkin's disease. Tumors at site or application. IARC: 2B - Group 2B: Possibly carcinogenic to humans (Titanium dioxide).

**Reproductive toxicity**

Tetrahydrofuran	No toxicity to reproduction.
All other ingredients	No data available.

**Teratogenicity**

No data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

Methyl ethyl ketone	May cause drowsiness or dizziness.
Tetrahydrofuran	Inhalation - May cause respiratory irritation. May cause drowsiness or dizziness. Nervous system
All other ingredients	No data available.

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

No data available.

**A-300WH PVC Adhesive White****Aspiration hazard**

No data available

**Potential health effects****Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness.**Ingestion:** May be harmful if swallowed.**Skin:** May be harmful if absorbed through skin. Causes skin irritation.**Eyes:** Causes eye irritation.**Signs and Symptoms of Exposure**To the best of our knowledge, the chemical, physical, and toxicological properties of this product (a mixture) have not been thoroughly investigated.

The following symptoms have been reported for overexposure to the ingredients: Central Nervous System depression, Cough, chest pain, difficulty in breathing, Gastrointestinal disturbance, narcosis.

**Synergistic effects**

No data available.

**12. ECOLOGICAL DATA****Toxicity**

Name	Fish LC <sub>50</sub> (mg/dm <sup>3</sup> /96 h)	Daphnia and other marine invertebrates EC <sub>50</sub> (mg/dm <sup>3</sup> /48 h)	Bacteria LC <sub>50</sub> (mg/dm <sup>3</sup> )
Methyl ethyl ketone	Mortality NOEC: 400 Cyprinodon variegatus (sheepshead minnow) 3,130 Pimephales promelas	LC <sub>50</sub> >520 (mg/dm <sup>3</sup> /48 h) EC <sub>50</sub> 7,060 (mg/dm <sup>3</sup> /24 h)	n/a
Poly(vinyl chloride) resin	No data available	No data available	No data available
Tetrahydrofuran	2,160 Pimephales promelas (fathead minnow)	n/a	Growth inhibition NOEC: 3,700 mg/dm <sup>3</sup> (Algae)
Titanium dioxide	>1,000 (other fish)	1,000	No data available.

**Persistence and degradability**

Tetrahydrofuran	Expected to be biodegradable
All other ingredients	No data available.

**Bioaccumulative potential**

No data available.

**Mobility in soil**

No data available.

**PBT and vPvB assessment**

No data available.

**Other adverse effects**

Data for the entire preparation (a mixture) is not available.

**13. DISPOSAL CONSIDERATIONS****Unused or spoiled product**

The user must determine if it meets applicable definitions of a hazardous waste per 40 CFR 261 and other regulations. Dispose according to the environmental laws. Contact a licensed professional waste disposal service to arrange for appropriate removal. Burn the material in a chemical incinerator equipped with an afterburner and scrubber.

**Container**

Empty packaging may contain product residue and should not be reused. Dispose as of unused product.

**A-300WH PVC Adhesive White**

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**14. TRANSPORTATION INFORMATION**

Information provided for guidance purpose only and not meant to be inclusive. Packaging suitability and compliance with regulations must be reviewed prior to shipment.

Quantities smaller than 2.0 litres may be shipped as CONSUMER COMMODITY (per 49 CFR 171.8). Bulk quantities are regulated as follows:

**DOT (U. S. A.); IMDG; IATA**

UN1133; Class 2; Packing Group II

**Proper shipping name**

Adhesive, containing a flammable liquid.

**Other information**

Not considered marine pollutant or poison inhalation hazard.

**DOT reportable ingredients:**

Proper Shipping Name	Amount	Reportable quantity
Methyl ethyl ketone	10-20%	2,267 kg (5,000 lb)
Tetrahydrofuran	40-55%	454 kg (1,000lb)

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**15. REGULATORY INFORMATION****OSHA Hazards**

Flammable Liquid, Target Organ Effect, Harmful by ingestion, Irritant, Carcinogen.

**TSCA and DSL**

Listed or exempt

**SARA 302**

To the best of our knowledge, no chemicals in this product are subject to the reporting requirements of SARA Title III, Section 302 (40 CFR 355.30)

**SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard, Chronic Health Hazard.

**SARA 313**

To the best of our knowledge, no chemicals in this product are subject to the reporting requirements of SARA Title III, Section 313

**California Proposition 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**Volatile Organic Compounds**

Below 700 g/l

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**16. ADDITIONAL INFORMATION**

This safety data sheet complies with 29 CFR 1910.1200 and with EC 1907/2006, as amended. Paper copies of this publication may be made by the users for internal purposes only.

Last modified: Dec 1, 2014.

**Disclaimer**

All information and data appearing on this Safety Data Sheet are provided in good faith and are believed to be reliable and accurate to the best of our knowledge at the date of publication. Although certain hazards are listed herein, there is no guarantee that these are only risks. None of the provided information is to be considered a warranty or quality specification or all-inclusive and is given only as guidance. It is the user's responsibility to determine the safety of use, handling, storage, transportation, disposal, and suitability for the intended utilisation of the product. Unless otherwise specified, the data provided herein is valid only for the described material and may be not applicable for the product used in combination with any other materials or processes. Colorado Paint Company / Swarco shall not be liable for any damage resulting from handling, contact, use, or inability to use of this product. No guarantee, expressed or implied, is made by Colorado Paint Company / Swarco and the user assumes all risk and responsibility.

# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	AUTORF +SSPR 6PK AUTO SANDABLE PRMR GRY	<b>Revision Date:</b>	5/6/2015
<b>Product Identifier:</b>	249415	<b>Supersedes Date:</b>	8/22/2014
<b>Product Use/Class:</b>	Primer/Aerosol		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

**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.

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### Possible Hazards

62% of the mixture consists of ingredient(s) of unknown acute toxicity

### GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Flammable Liquid, category 1	H224	Extremely flammable liquid and vapor.
Acute Toxicity, Oral, category 5	H303	May be harmful if swallowed.
Acute Toxicity, Dermal, category 5	H313	May be harmful in contact with skin.
Skin Irritation, category 2	H315	Causes skin irritation.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Aspiration Hazard, category 2	H305	May be harmful if swallowed and enters airways.
Eye Irritation, category 2B	H320	Causes eye irritation.
Flammable Aerosol, category 1	H280	Contains gas under pressure; may explode if heated.

Germ Cell Mutagenicity, category 1B	H340	May cause genetic defects. Classified as mutagenic Category 1 if one ingredient is present at or above 0.1%. Applies to liquids, solids (w/w units) and gases (v/v). The substance may also have its own exposure limit. Routes of exposure are dependent on ingredient form.
Carcinogenicity, category 1B	H350	May cause cancer. Classified as carcinogenic Category 1 on the basis of epidemiological and/or animal data. Mixtures are classified as carcinogenic when at least 1 ingredient has been classified as carcinogenic and is present at 0.1% or above. Routes of exposure are dependant on ingredient form.
Reproductive Toxicity, category 2	H361	Suspected of damaging fertility or the unborn child. Classified Category 2 suspected human reproductive toxicant irreversible effects such as structural malfunctions, embryo/foetal lethality, post natal functional deficiencies.
STOT, repeated exposure, category 1	H372	Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

**GHS PRECAUTIONARY STATEMENTS**

P211	Do not spray on an open flame or other ignition source.
P220	Keep/Store away from clothing/.../combustible materials.
P235	Keep cool.
P251	Pressurized container: Do not pierce or burn, even after use.
P375	Fight fire remotely due to the risk of explosion.
P102	Keep out of reach of children.
P103	Read label before use.
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P351	Rinse cautiously with water for several minutes.
P374	Fight fire with normal precautions from a reasonable distance.
P402	Store in a dry place.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/.../ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378	In case of fire: Use ... for extinction.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to ...
P321	Specific treatment (see ... on this label).
P352	Wash with plenty of soap and water.
P362	Take off contaminated clothing and wash before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P201	Obtain special instructions before use.

P308+P313

IF exposed or concerned: Get medical advice/attention.

P314

Get medical advice/attention if you feel unwell.

P302+P350

IF ON SKIN: Gently wash with plenty of soap and water.

### 3. Composition/Information On Ingredients

#### HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.% Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Hydrous Magnesium Silicate	14807-96-6	10-25		
Propane	74-98-6	10-25		
Mineral Spirits	64742-88-7	10-25	GHS06-GHS08	H331-372
Acetone	67-64-1	2.5-10	GHS02-GHS07	H225-336-319
n-Butane	106-97-8	2.5-10		
Xylene (mixed isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-312-332-315
Toluene	108-88-3	2.5-10	GHS02-GHS07-GHS08	H225-302-332-361-336-373-315
n-Butyl Acetate	123-86-4	2.5-10	GHS02-GHS07	H225-336
Aromatic Petroleum Distillates	64742-94-5	2.5-10	GHS06	H227-310
Ethylbenzene	100-41-4	1.0-2.5	GHS02-GHS07	H225-332
Zinc Phosphate	7779-90-0	1.0-2.5		
Titanium Dioxide	13463-67-7	1.0-2.5		
Aliphatic Hydrocarbon	64742-89-8	1.0-2.5	GHS08	H340-350
Carbon Black	1333-86-4	0.1-1.0	GHS02	H251

The text for GHS Hazard Statements shown above (if any) is given in the "16. Other Information" section.

### 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

**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

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Hydrous Magnesium Silicate	14807-96-6	20.0	2 mg/m <sup>3</sup> (Respirable Dust)	N.E.	20 mppcf (Mineral Dust <1% Quartz)	N.E.
Propane	74-98-6	20.0	1000 ppm	N.E.	1000 ppm	N.E.
Mineral Spirits	64742-88-7	15.0	100 ppm	N.E.	100 ppm	N.E.
Acetone	67-64-1	10.0	500 ppm	750 ppm	1000 ppm	N.E.
n-Butane	106-97-8	10.0	1000 ppm	1000 ppm	N.E.	N.E.
Xylene (mixed isomers)	1330-20-7	10.0	100 ppm	150 ppm	100 ppm	N.E.
Toluene	108-88-3	10.0	20 ppm	N.E.	200 ppm	300 ppm
n-Butyl Acetate	123-86-4	5.0	150 ppm	200 ppm	150 ppm	N.E.
Aromatic Petroleum Distillates	64742-94-5	5.0	N.E.	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	125 ppm	100 ppm	N.E.
Zinc Phosphate	7779-90-0	5.0	N.E.	N.E.	N.E.	N.E.
Titanium Dioxide	13463-67-7	5.0	10 mg/m <sup>3</sup> (Total Dust)	N.E.	15 mg/m <sup>3</sup> [Total Dust]	N.E.
Aliphatic Hydrocarbon	64742-89-8	5.0	350 ppm	N.E.	500 ppm	N.E.
Carbon Black	1333-86-4	1.0	3 mg/m <sup>3</sup> (Inhalable Dust)	N.E.	3.5 mg/m <sup>3</sup>	N.E.

### 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>Appearance:</b>	Aerosolized Mist	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	0.850	<b>pH:</b>	N.A.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Slight	<b>Partition Coefficient, n-octanol/water:</b>	No Information
<b>Decomposition Temp., °C:</b>	No Information	<b>Explosive Limits, vol%:</b>	0.7 - 14.3
<b>Boiling Range, °C:</b>	-11 - 467	<b>Flash Point, °C:</b>	-105
<b>Flammability:</b>	Does not Support Combustion	<b>Auto-ignition Temp., °C:</b>	No Information
<b>Evaporation Rate:</b>	Faster than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** Avoid temperatures above 120 ° F. 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

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Causes Serious Eye Irritation

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** May be absorbed through the skin in harmful amounts. 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:** IARC lists Ethylbenzene as a possible human carcinogen (group 2B). 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. Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010) 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

### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat

64742-88-7	Mineral Spirits	>5000 mg/kg Rat	3000 mg/kg Rabbit	>5.28 mg/L Rat
1330-20-7	Xylene (mixed isomers)	4300 mg/kg Rat	N.I.	47635 mg/L Rat
108-88-3	Toluene	636 mg/kg Rat	8390 mg/kg Rabbit	12.5 mg/L Rat
123-86-4	n-Butyl Acetate	N.I.	>17600 mg/kg Rabbit	N.I.
64742-94-5	Aromatic Petroleum Distillates	>5000 mg/kg Rat	>2 mL/kg Rabbit	N.I.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15354 mg/kg Rabbit	17.2 mg/L Rat
7779-90-0	Zinc Phosphate	>5000 mg/kg Rat	N.I.	N.I.
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	N.I.	N.I.
64742-89-8	Aliphatic Hydrocarbon	N.I.	3000 mg/kg Rabbit	N.I.

N.I. - No Information

## 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>
<b>UN Number:</b>	N.A.	1950	1950	N.A.
<b>Proper Shipping Name:</b>	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
<b>Hazard Class:</b>	N.A.	2.1	2.1	N.A.
<b>Packing Group:</b>	N.A.	N.A.	N.A.	N.A.
<b>Limited Quantity:</b>	Yes	Yes	Yes	Yes

## 15. Regulatory Information

### U.S. Federal Regulations:

#### CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

#### Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Xylene (mixed isomers)	1330-20-7
Toluene	108-88-3
Ethylbenzene	100-41-4
Zinc Phosphate	7779-90-0

#### 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:

<u>Chemical Name</u>	<u>CAS-No.</u>
Phthalic Anhydride	85-44-9

**CALIFORNIA PROPOSITION 65:**

<u>Chemical Name</u>	<u>CAS-No.</u>
Ethylbenzene	100-41-4
Titanium Dioxide	13463-67-7
Carbon Black	1333-86-4

**CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS**

<u>Chemical Name</u>	<u>CAS-No.</u>
Toluene	108-88-3

**International Regulations:****CANADIAN WHMIS:**

This SDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

**16. Other Information****HMIS RATINGS**

Health: 2\*      Flammability: 4      Physical Hazard: 0      Personal Protection: X

CANADIAN WHMIS CLASS: AB5 D2A

**NFPA RATINGS**

Health: 2      Flammability: 4      Instability: 0

VOLATILE ORGANIC COMPOUNDS, g/L: 577

MSDS REVISION DATE: 5/6/2015

REASON FOR REVISION: No Information

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

**Text for GHS Hazard Statements shown in Section 3 describing each ingredient:**

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H227	Combustible liquid
H251	Self-heating; may catch fire.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H350	May cause cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H361	Suspected of damaging fertility or the unborn child. Classified Category 2 suspected human reproductive toxicant irreversible effects such as structural malfunctions, embryo/foetal lethality, post natal functional deficiencies.
H372	Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H373	May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

**Icons for GHS Pictograms shown in Section 3 describing each ingredient:**

GHS02



GHS06



GHS07



GHS08



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.

# MATERIAL SAFETY DATA SHEET

BWI Distribution Pro-Stick

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** BWI Distribution Pro-Stick

**Product Number:** A06761

**Product Use:** Adhesive.

**Manufacturer/Supplier:** BWI Distribution, Inc.  
10942 Beaver Dam Rd.  
Hunt Valley, MD 21030

**Phone Number:** (410)-785-4848

**D.O.T. Emergency Phone:** CHEM TEL (800) 255-3924

**Date of Preparation:** October 20, 2010

**Revision #:** 2.0

## Section 2: HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**HMIS:** See Section 15

**DANGER**

EXTREMELY FLAMMABLE. HARMFUL BY INHALATION. MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION. CONTENTS UNDER PRESSURE. CONTAINER MAY EXPLODE IF HEATED.

**Potential Health Effects:** See Section 11 for more information.

**Likely Routes of Exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** Not a normal route of exposure. Harmful: may cause lung damage if swallowed.

**Inhalation:** Harmful by inhalation. May cause respiratory tract irritation. This product may be aspirated into the lungs and cause chemical pneumonitis.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation.

**Signs and Symptoms:** Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Handling can cause dry skin. Vapours may cause drowsiness and dizziness.

**Medical Conditions Aggravated By Exposure:** Asthma. Allergies.

**Target Organs:** Skin, eyes, gastrointestinal tract, respiratory system.

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

**Potential Environmental Effects:** May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

## Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Wt. %
Acetone	67-64-1	10 - 30
Isobutane	75-28-5	10 - 30
Propane	74-98-6	10 - 30
Heptane	142-82-5	7 - 13

# MATERIAL SAFETY DATA SHEET

BWI Distribution Pro-Stick

## Section 4: FIRST AID MEASURES

- Eye Contact:** In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn.
- Skin Contact:** 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.
- Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
- Note to Physicians:** Symptoms may not appear immediately.

## Section 5: FIRE FIGHTING MEASURES

- Flammability:** Extremely flammable by OSHA criteria.
- Means of Extinction:**
- Suitable Extinguishing Media:** Powder, water spray, foam, carbon dioxide.
  - Unsuitable Extinguishing Media:** Not available.
- Products of Combustion:** May include, and are not limited to: oxides of carbon.
- Explosion Data:**
- Sensitivity to Mechanical Impact:** Not available.
  - Sensitivity to Static Discharge:** Not available.
- Protection of Firefighters:** Containers may explode when heated. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## Section 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Ruptured cylinders may rocket.
- Environmental Precautions:** Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). This material is a water pollutant. Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.
- 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 Clean-Up:** Vacuum or sweep material and place in a disposal container. Allow gas to dissipate harmlessly into the atmosphere.
- Other Information:** Not available.

# MATERIAL SAFETY DATA SHEET

BWI Distribution Pro-Stick

## Section 7: HANDLING AND STORAGE

### Handling:

Keep away from sources of ignition. No smoking. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Use only in well-ventilated areas. Handle and open container with care. When using, do not eat or drink. Wash hands before eating, drinking, or smoking.

### Storage:

Keep out of the reach of children. Keep container in a well-ventilated place. Do not store at temperatures above 49°C / 120°F.

## Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Ingredient	Exposure Limits	
	OSHA-PEL	ACGIH-TLV
Acetone	750 ppm	500 ppm
Isobutane	Not available.	1000 ppm
Propane	1000 ppm	1000 ppm
Heptane	400 ppm	400 ppm

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

### Personal Protective Equipment:

**HMIS:** See Section 15

**Eye/Face Protection:** Wear eye/face protection.

**Hand Protection:** Wear suitable gloves.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear.
<b>Color:</b>	Colorless to light yellow.
<b>Odour:</b>	Solvent.
<b>Odour Threshold:</b>	Not available.
<b>Physical State:</b>	Gas/Pressurized Liquid.
<b>pH:</b>	Not applicable.
<b>Viscosity:</b>	Not available.
<b>Freezing Point:</b>	Not available.
<b>Boiling Point:</b>	Not available.
<b>Flash Point:</b>	Not available.
<b>Evaporation Rate:</b>	Not available.
<b>Lower Flammability Limit:</b>	Not available.
<b>Upper Flammability Limit:</b>	Not available.

# MATERIAL SAFETY DATA SHEET

BWI Distribution Pro-Stick

Vapor Pressure:	Not available.
Vapor Density:	Not available.
Specific Gravity:	0.82 (Concentrate only)
Solubility in Water:	Insoluble.
Coefficient of Water/Oil Distribution:	Not available.
Auto-ignition Temperature:	Not available.
Percent Volatile, wt. %:	Not available.
VOC content, wt. %:	53.2% (US federal/CARB/OTC/LADCO)
VOC content, g/L:	Not available.

## Section 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Keep in a cool place.

**Conditions of Reactivity:** Heat. Incompatible materials.

**Incompatible Materials:** Oxidizers.

**Hazardous Decomposition Products:** May include, and are not limited to: oxides of carbon.

**Possibility of Hazardous Reactions:** No dangerous reaction known under conditions of normal use.

## Section 11: TOXICOLOGY INFORMATION

### EFFECTS OF ACUTE EXPOSURE

#### Component Analysis

Ingredient	LD <sub>50</sub> (oral)	LC <sub>50</sub>
Acetone	5800 mg/kg, rat	Not available.
Isobutane	Not available.	658 mg/L 4hr, rat
Propane	Not available.	658 mg/L 4hr, rat
Heptane	5000 mg/kg, mouse	103 g/m <sup>3</sup> 4hr, rat

**Eye:** May cause 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. Handling can cause dry skin.

**Ingestion:** Not a normal route of exposure. Harmful: may cause lung damage if swallowed.

**Inhalation:** Harmful by inhalation. May cause respiratory tract irritation. This product may be aspirated into the lungs and cause chemical pneumonitis. Vapours may cause drowsiness and dizziness.

### EFFECTS OF CHRONIC EXPOSURE

**Target Organs:** Not available.

**Chronic Effects:** Not hazardous by OSHA criteria.

**Carcinogenicity:** Not hazardous by OSHA criteria.



# MATERIAL SAFETY DATA SHEET

BWI Distribution Pro-Stick

## Ingredient

## Chemical Listed as Carcinogen or Potential Carcinogen \*

Acetone  
Isobutane  
Propane  
Heptane

G-A4  
Not listed.  
Not listed.  
Not listed.

\* See Section 15 for more information.

**Mutagenicity:** Not hazardous by OSHA criteria.

**Reproductive Effects:** Not hazardous by OSHA criteria.

## Developmental Effects:

**Teratogenicity:** Not hazardous by OSHA criteria.

**Embryotoxicity:** Not hazardous by OSHA criteria.

**Respiratory Sensitization:** Not hazardous by OSHA criteria.

**Skin Sensitization:** Not hazardous by OSHA criteria.

**Toxicologically Synergistic Materials:** Not available.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** May cause long-term adverse effects in the aquatic environment

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

## Section 13: DISPOSAL CONSIDERATIONS

## Disposal Instructions:

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

## Section 14: TRANSPORTATION INFORMATION

**DOT Classification**  
ORM-D

## Section 15: REGULATORY INFORMATION

## Federal Regulations

**US:** MSDS prepared pursuant to the Hazard Communication Standard (29 CFR 1910.1200).

## SARA Title III

## Ingredient

## Section 302 (EHS) TPQ (lbs.)

## Section 304 EHS RQ (lbs.)

## CERCLA RQ (lbs.)

## Section 313

Acetone  
Isobutane  
Propane  
Heptane

Not listed.  
Not listed.  
Not listed.  
Not listed.

Not listed.  
Not listed.  
Not listed.  
Not listed.

5,000  
5,000  
Not listed.  
Not listed.

Not listed.  
Not listed.  
Not listed.  
Not listed.

# MATERIAL SAFETY DATA SHEET

BWI Distribution Pro-Stick

## State Regulations

### California Proposition 65:

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

## Global Inventories

### Ingredient

Acetone  
Isobutane  
Propane  
Heptane

USA  
TSCA  
Yes.  
Yes.  
Yes.  
Yes.

## HMIS - Hazardous Materials Identification System

Health - 2

Flammability - 3

Physical Hazard - 0

PPE - B

## NFPA - National Fire Protection Association:

Health - 2

Fire - 3

Reactivity - 0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

## SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

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

### 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.

Prepared by: Nexreg Compliance Inc.

Prepared for: BWI Distribution, Inc.  
(410)-785-4848

**Thermo-12(R) Gold Calcium Silicate Insulation**

Version 0.0

Revision Date 01/15/2015

Print Date 01/15/2015

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Trade name : Thermo-12(R) Gold Calcium Silicate Insulation

Manufacturer or supplier's details

Company : Johns Manville

Address : P.O. Box 5108  
Denver, CO USA 80127

Telephone : 303-978-2000 8:00AM-5:00PM M-F

Emergency telephone : 1-800-424-9300 (Chemtrec, in English)  
number

Prepared by : productsafety@jm.com

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Not a hazardous substance or mixture.

**Other hazards**

Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical nature**

Pipe or block insulation with a tan color throughout to indicate the product is asbestos free.

**Hazardous components**

Chemical Name	CAS-No.	Concentration (%)
synthetic calcium silicate	1344-95-2	$\geq 90$
cellulose fiber	9004-34-6	$\geq 0 - \leq 4$

**SECTION 4. FIRST AID MEASURES**

General advice : No hazards which require special first aid measures.

If inhaled : If symptoms persist, call a physician.

In case of skin contact : If symptoms persist, call a physician.

In case of eye contact : Remove contact lenses.  
Protect unharmed eye.  
Rinse thoroughly with plenty of water, also under the eyelids.  
If eye irritation persists, consult a specialist.If swallowed : Keep respiratory tract clear.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

**Thermo-12(R) Gold Calcium Silicate Insulation**

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**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Hazardous combustion products : No hazardous combustion products are known
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Avoid dust formation.
- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.  
Sweep up and shovel.  
Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Keep in a dry, cool place.
- Materials to avoid : No materials to be especially mentioned.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
synthetic calcium silicate	1344-95-2	TWA (Respirable)	5 mg/m <sup>3</sup>	NIOSH REL
		TWA (total)	10 mg/m <sup>3</sup>	NIOSH REL
		TWA (total dust)	15 mg/m <sup>3</sup>	OSHA
		TWA	5 mg/m <sup>3</sup>	OSHA

## Thermo-12(R) Gold Calcium Silicate Insulation

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		(respirable fraction)		
		TWA	10 mg/m3	ACGIH
cellulose fiber	9004-34-6	TWA	10 mg/m3	ACGIH
		TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3	OSHA
		TWA (respirable fraction)	5 mg/m3	OSHA

### Personal protective equipment

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. No personal respiratory protective equipment normally required.

Hand protection  
Remarks : For prolonged or repeated contact use protective gloves.

Eye protection : Safety glasses

Skin and body protection : If used and stored as directed, no special protective equipment is necessary.

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

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : solid

Colour : tan

Odour : odourless

Odour Threshold : No data available

pH : Not applicable

Melting point/range : 1,200 °F

Initial boiling point and boiling range : Not applicable

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : No data available

Upper explosion limit : Not applicable

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Lower explosion limit	: Not applicable
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Relative density	: 0.24
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	: No data available

**SECTION 11. TOXICOLOGICAL INFORMATION**

<b>IARC</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>NTP</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Thermo-12(R) Gold Calcium Silicate Insulation**

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**STOT - single exposure****Components:****synthetic calcium silicate:**

Target Organs: Eyes, Lungs

**Further information****Product:**

Remarks: Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product. No data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information

: Due to the properties of the article, a hazard to the environment may not be expected.

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Contaminated packaging

: Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Packaging that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

**Thermo-12(R) Gold Calcium Silicate Insulation**

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**SECTION 14. TRANSPORT INFORMATION****International transport regulations**

These products are not classified as dangerous goods according to international transport regulations.

**SECTION 15. REGULATORY INFORMATION**

**TSCA list** : Not relevant  
Not relevant

**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

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

**The components of this product are reported in the following inventories:**

**TSCA** : On TSCA Inventory

**DSL** : All components of this product are on the Canadian DSL.

**SECTION 16. OTHER INFORMATION****Further information**

Revision Date : 01/15/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information 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



**Thermo-12(R) Gold Calcium Silicate Insulation**

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the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



# Safety Data Sheet

Issue Date: 05/28/2015

ITW Insulation Systems encourages and expects you to read and understand the entire 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**

TRYMER™ 2000XP Rigid Polyisocyanurate Insulation

**COMPANY IDENTIFICATION**

ITW Insulation Systems  
1370 East 40<sup>th</sup> Street  
Building 7, Suite 1  
Houston, TX 77022-4101  
USA

Customer Information Number 1-800-231-1024

**Recommended Uses and Restrictions**

Thermal insulation for industrial and commercial use.

## 2. Hazards Identification

**Emergency Overview****Color:** Tan**Physical State:** Bun/billet**Odor:** Odorless**Hazards of product:**

Toxic fumes may be released in fire situations.

**OSHA Hazard Communication Standard**

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Potential Health Effects**

**Eye Contact:** Solid or dust may cause irritation or corneal injury due to mechanical action. Fumes/vapor released during thermal operations such as hot-wire cutting may cause eye irritation.

**Skin Contact:** Essentially nonirritating to skin. Mechanical injury only.

**Skin Absorption:** Skin absorption is unlikely due to physical properties.

**Inhalation:** Dust may cause irritation to upper respiratory tract (nose and throat). Fumes or dusts generated from cutting or grinding operations may cause irritation of the upper respiratory tract and lungs. Concentrations of the blowing agents anticipated incidental to proper handling are expected to be well below those which cause acute inhalation effects and below exposure guidelines.

**Ingestion:** Swallowing is unlikely because of the physical state. Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause choking or blockage of the digestive tract if swallowed.

™ Trademark of ITW Insulation Systems

### 3. Composition Information

Component	CAS #	Amount
Modified Polyisocyanurate Rigid Cellular Polymer	Not applicable	≥85.0%
Hydrocarbon blowing agent(s)	Not applicable	≤10.0%
Tris(1-chloro-2-propyl) phosphate	13674-84-5	≤5.0%

### 4. First-Aid Measures

**Eye Contact:** Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for several minutes. Only mechanical effects expected. If effects occur, consult a physician, preferably an ophthalmologist.

**Skin Contact:** Seek first aid or medical attention as needed.

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

**Ingestion:** If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.

**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. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance. **Unusual**

**Fire and Explosion Hazards:** When product is stored in closed containers, a flammable atmosphere can develop. Mechanical cutting, grinding or sawing can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate. Rapid bursting of a multitude of cells such as might occur during compaction of product waste for disposal will release a flammable blowing agent which can lead to the development of a flammable atmosphere in inadequately vented equipment. This product contains a flame retardant to inhibit accidental ignition from small fire sources. This plastic foam product is combustible and should be protected from flames and other high heat sources. For more information, contact ITW Insulation Systems. 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. In smoldering or flaming conditions, carbon monoxide, carbon dioxide and carbon are generated. Combustion products may include and are not limited to: Nitrogen oxides. Combustion products may include trace amounts of: Hydrogen cyanide. Hydrogen Halides. Aromatic hydrocarbons.

### 6. Accidental Release Measures

**Steps to be Taken if Material is Released or Spilled:** Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

**Personal Precautions:** 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 ground water. See Section 12, Ecological Information.

## 7. Handling and Storage

### General Handling

This material is combustible and should not be exposed to flame or other ignition sources. Refer to Exposure Controls and Personal Protection, Section 8 of the SDS. No smoking, open flames or sources of ignition in handling and storage area. Fabrication methods which involve cutting into this product may release the blowing agent(s) remaining in the cells. Provide adequate ventilation to assure localized concentrations in release areas are maintained below the lower flammable limit.

### Other Precautions

Good housekeeping and controlling of dusts are necessary for safe handling of product.

### Storage

Keep in a cool, well-ventilated place. Minimize sources of ignition, such as static build-up, heat, spark or flame. Flammable vapors may accumulate in some storage situations. During shipment, storage, installation, and use, this material should not be exposed to flame or other ignition sources.

## 8. Exposure Controls / Personal Protection

### Exposure Limits

Component	List	Type	Value
Cyclopentane (8CI, 9CI)	ACGIH	TWA	600 ppm
Isopentane	ACGIH	TWA	600 ppm

Concentrations of the blowing agents anticipated incidental to proper handling are expected to be well below those which cause acute inhalation effects and below exposure guidelines.

### Personal Protection

**Eye/Face Protection:** Eye protection should not be necessary. For fabrication operations safety glasses are recommended. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

**Skin Protection:** No precautions other than clean body-covering clothing should be needed.

**Hand protection:** Use gloves to protect from mechanical injury. Selection of gloves will depend on the task.

**Respiratory Protection:** Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In dusty or misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Particulate filter.

**Ingestion:** No precautions necessary due to the physical properties of the material.

### Engineering Controls

**Ventilation:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

## 9. Physical and Chemical Properties

Physical State	Bun/billet
Color	Tan
Odor	Odorless
Flash Point - Closed Cup	Not applicable
Flammable Limits In Air	<b>Lower:</b> Not applicable <b>Upper:</b> Not applicable
Autoignition Temperature	490 °C (914 °F) <i>ASTM D1929</i>

Vapor Pressure	Not applicable
Boiling Point (760 mmHg)	Not applicable
Vapor Density (air = 1)	Not applicable
Specific Gravity (H2O = 1)	0.02 - 0.05 <i>Estimated</i>
Freezing Point	Not applicable
Melting Point	>150 °C (>302 °F) <i>Estimated</i> , Decomposes
Solubility in Water (by weight)	Insoluble in water
pH	Not applicable
Kinematic Viscosity	Not applicable

## 10. Stability and Reactivity

### Stability/Instability

Thermally stable at typical use temperatures.

### Conditions to Avoid

Avoid temperatures above 150 °C (302 °F). Exposure to elevated temperatures can cause product to decompose. Avoid direct sunlight.

### Incompatible Materials

Avoid contact with strong oxidizers.

### Hazardous Polymerization

Will not occur.

### Thermal Decomposition

Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

## 11. Toxicological Information

### Repeated Dose Toxicity

Repeated exposures to dusts of this material are not anticipated to result in systemic toxicity or permanent lung injury; however, excessive exposures may cause less severe respiratory effects.

## 12. Ecological Information

### CHEMICAL FATE

#### Movement & Partitioning

No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material is expected to float.

#### Persistence and Degradability

Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

### ECOTOXICITY

Not expected to be acutely toxic to aquatic organisms.

### 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. ITW 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 SDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Landfill. Incinerator or other thermal destruction device. As a service to its customers, ITW Insulation Systems 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 ITW's Customer Information Group at 1-800-231-1024 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 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 not 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	No
Delayed (Chronic) Health Hazard	No
Fire Hazard	No
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

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**

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
Hydrocarbon blowing agent(s)	Not applicable	≤10.0%

**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.

**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.

**Toxic Substances Control Act (TSCA)**

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

**Revision**

Revision Date: 5/28/2015

**Legend**

TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists

*ITW Insulation Systems urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this 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 SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.*

# MATERIAL SAFETY DATA SHEET

Date Prepared: 11-23-09

Revision No.: 1.0

## **SECTION 1: Product and Manufacturer Information**

### Product Description:

VentureClad Line

### Product Designations:

1577CW	1577CW-B	1577CW-BE	1577CW-W	1577CWE
1577CWT	1578CW	1579CW	1579CW-E	1579CW-W
1579NA				

### Manufacturer:

Venture Tape Corp.  
30 Commerce Road  
Rockland, MA 02370  
www.venturetape.com

800-343-1076

## **SECTION 2: Hazardous Components**

The above listed products may contain one or more hazardous chemical components. However, due to their incorporation into the structure of the products, exposure to such components is not anticipated under normal conditions of use. See section 16 for further discussion.

## **SECTION 3: Description of Hazards**

Exposure to hazards of chemical components is not anticipated in normal use. MSDS for individual components are available from Venture Tape upon request by contacting Technical Service at the above number.

## **SECTION 4: First Aid Measures**

Clean and dress wound if cut by product edge. There are no known acute, immediate effects requiring treatment as a result of the use of this product as supplied.





# **MATERIAL SAFETY DATA SHEET**

**Pressure Sensitive Tape Products (continued)**

**Page 2 of 3**

## **SECTION 5: Fire-fighting Measures**

All extinguishing chemicals and methods are applicable. Self-contained, positive pressure breathing apparatus should be used if available in fire conditions. Fire or very high temperatures (not normal conditions of use) can cause release of toxic smoke and fumes.

## **SECTION 6: Accidental Release Measures**

Not applicable.

## **SECTION 7: Handling and Storage Guidelines**

Use care to avoid paper cuts from sheet edges. No other special handling or storage precautions apply in respect to potential hazards.

## **SECTION 8: Exposure Controls and Personal Protection**

None required in normal use. Exercise care to avoid paper cuts from sheet edges.

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

Product is a manufactured article in the form of a flexible sheet or strip. Contains some combination of two or more of the following major material components: paper, plastic film, aluminum foil, reinforcing yarn, adhesive.

## **SECTION 10: Stability and Reactivity**

Hazardous decomposition will occur only under fire conditions. Various harmful compounds could be formed during combustion. No hazards associated with normal use.

## **SECTION 11: Toxicological Information**

Although hazardous chemicals may be used in this product, exposure to those chemicals and possible hazardous effects will not occur with the product in this form, in normal use. MSDS for individual hazardous chemicals can be supplied upon request by contacting Technical Service at the above number.

# MATERIAL SAFETY DATA SHEET

Pressure Sensitive Tape Products (continued)

Page 3 of 3

## **SECTION 12: Ecological Information**

The anticipated instances of release into the environment would be during disposal of scrapped building materials, of which this product could be a part, or waste during use. Other than the paper component, the materials of construction are very resistant to biodegradation and are not water soluble. Potential impact may be as per individual hazardous components, MSDS for which can be supplied upon request by contacting Technical Service at the above number.

## **SECTION 13: Disposal Considerations**

Dispose of per appropriate local regulations. Product is not recyclable.

## **SECTION 14: Transport Information**

No special procedures required.

## **SECTION 15: Regulatory Information**

No known regulations apply.

## **SECTION 16: Other Information**

Per the Code of Federal Regulations 1910.1200, this product is considered by Venture Tape to be an *article*, defined in the regulation as “a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees.”

Although this product may contain hazardous components, we do not believe those hazards are present as manufactured or when used. Since the product meets the definition of an article, it is technically not subject to this regulation or MSDS reporting. This document is provided for informational purposes, and is not meant to imply that this product is hazardous.



# VIMASCO CORPORATION

P.O. Box 516 \* Nitro, WV 25143 \* (304) 755-3328  
Toll Free (800) 624-8288 \* Fax (304) 755-7153  
www.vimasco.com

## S D S SAFETY DATA SHEET — 16 Sections

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier <b>749 VaporBlok™ Coating</b>		August 21, 2014	
Product Use <b>Water-based Vapor Barrier Coating</b>			
Manufacturer's Name <b>Vimasco Corporation</b>		Supplier's Name	
Street Address <b>280 W. 19<sup>th</sup> St., Republic Way</b>		Street Address	
City <b>Nitro</b>	State: <b>WV</b>	City	
Postal Code <b>25143</b>	Emergency Phone <b>(304) 206-7803</b>	Postal Code	Emergency Telephone
Prepared by: <b>John Tidquist</b>		Phone Number <b>(304) 755-3328</b>	

### SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients ( <i>specific</i> )	% by wt	CAS Number	LD <sub>50</sub> of Ingredient ( <i>specify species and route</i> )	LC <sub>50</sub> of Ingredient ( <i>specify</i> )
Aqua Ammonia	<.1	1336-21-6	Oral rat 350 mg/kg	Inhalation rat 5000 ppm
Chlorinated Paraffin	3 – 5	63449-39-8 85535-85-9	Not Available	Not Available
Water	30 – 35			
Carboxylated Styrene Butadiene Polymer	15 – 20	52831-07-9	Not Available	Not Available
Hydrated Alumina	25 – 30	21645-51-2	Not Available	Not Available
Titanium Dioxide	4 – 5	13463-67-7	Oral rat >5000 mg/kg rat	Not Available
Wollastonite	4 – 5	13983-17-0	Not Available	Not Available
Propylene Glycol	1 – 2	57-55-6	Oral 22,000 – 31,000 mg/kg rat	Not Available
Triaryl, Isopropylated Phosphate	1 – 2	68937-41-7	Not Available	Not Available
Surfactant	0.5	9104-85-1	Oral 6300 mg/kg rat	Not Available
Petroleum Distillate	0.1 – 0.2	64742-65-0	Not Available	Not Available

### SECTION 3 — HAZARDS IDENTIFICATION

**Primary Routes of Entry:** Dermal or inhalation

**Eye:** May be an irritant; **Skin:** Prolonged contact may cause irritation dermatitis;

**Ingestion:** No information assumed to cause gastro irritation. Low toxicity;

**Inhalation:** May cause irritation to the respiratory tracts. Overexposure could cause headache, nausea, fatigue.

### SECTION 4 — FIRST AID MEASURES

**Skin:** Wash with soap and water

**Eyes:** Flush with clean water at least 15 minutes, if irritation persists, consult physician.

**Inhalation:** Remove to fresh air. If breathing is difficult, administer oxygen. If irritation persists, consult physician

**Ingestion:** Give two glasses of water, induce vomiting, consult physician or poison control center. Never give anything by mouth to an unconscious person.

### SECTION 5 — FIRE FIGHTING MEASURES

Flammable  No	If yes, under which conditions?	
Means of Extinction: Alcohol Foam, CO <sub>2</sub> , Dry Chemical, Water Fog		
Flashpoint: No flash to boiling 212°F (TCC)	Upper Flammable Limit (% by volume)	Lower Flammable Limit (% by volume)
Autoignition Temperature (°C)	Explosion Data: None known	Explosion Data — Sensitivity to Static Discharge
Hazardous Combustion Products : None known		
Product will not burn until water has boiled or evaporated. For dried film or residual solids, full protective equipment is recommended, including self-contained breathing apparatus		

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Spills should be collected for disposal; eliminate all ignition sources. Prevent material from entering drains, sewers and waterways. Spills may be slippery. Before drying product may be washed away with water; after drying, remove with a paint scraper or strong solvent.

## **SECTION 7 — HANDLING AND STORAGE**

Thoroughly cleanse hands after handling. Launder contaminated clothing before reuse.

Protect from freezing.

Do not use empty containers for potables or edibles.

Store indoors at temperatures of 40°F to 90°F. Do not store at elevated temperatures, as containers could pressurize and rupture

Spills may be slippery.

## **SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION**

Exposure limits: Not available

In restricted ventilation areas, use approved chemical respirator, avoid inhalation of airborne particulates by using an approved respirator. General (mechanical) room ventilation is expected to be satisfactory. Supplementary local exhaust and respiratory protection may be needed in poorly ventilated spaces, or evaporation from large surfaces when spraying.

Personal Protection: Impervious gloves, goggles, face shield or other eyewear to protect from splash.

## **SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Paste consistency	Odor : Mild latex odor	Wt/Gal: 10.5 lbs.
Specific Gravity: 1.26	Vapor Density (air = 1): Lighter than air	Viscosity: Approx. 160,000 – 170,000 cps
Evaporation Rate: Slower than ether	Boiling Point : 212°F to 216°F	Freezing Point : 32°F (0°C)
pH 8.0 to 9.0	VOC (lbs/gal): 39 gm/L; .384 lbs/gal (less water)	Volatile Volume: 38%

## **SECTION 10 — STABILITY AND REACTIVITY**

Chemical Stability: Stable

Avoid materials that are incompatible with water and oxidizers.

Thermal decomposition will yield CO, CO<sub>2</sub>, HPO<sub>x</sub>, HCL and fragmented short-chain hydrocarbons.

## **SECTION 11 — TOXICOLOGICAL INFORMATION**

Not available

**Product Identifier: 749 VaporBlok™, Vimasco Corporation**

## **SECTION 12 — ECOLOGICAL INFORMATION**

Not available

## **SECTION 13 — DISPOSAL CONSIDERATIONS**

Dispose of in accordance with all applicable regulations. Review hazard section of this sheet before attempting cleanup. Spills may be slippery. Before drying, product may be washed away with water; after drying remove with a paint scraper or strong solvent. Empty containers are non hazardous under RCRA as industrial waste.

## **SECTION 14 — TRANSPORT INFORMATION**

Not regulated.

## **SECTION 15 — REGULATORY INFORMATION**

**None**

## **SECTION 16 — OTHER INFORMATION**

For industry/professional use only. Not intended for retail sale or use by individual consumers.

### **HMIS Hazard Rating**

Health: 1      Flammability: 0      Physical Hazard: 0

### **NFPA**

Health: 1      Flammability: 0      Reactivity: 0



Speedline® Corporation

# SAFETY DATA SHEET

DATE ISSUED : 06/12/2015

DATE REVISED : 06/16/2015

## SPEEDLINE WELDING ADHESIVE

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Speedline Welding Adhesive**DISTRIBUTOR:**

Speedline Corporation  
6810 Cochran Road  
440-914-1122

**EMERGENCY PHONE:** Chemtel 800-255-3924

**RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE:** Product is an adhesive solvent mixture used to bond PVC plastic. Not intended for any other use or application.

### 2. HAZARDS IDENTIFICATION

#### CLASSIFICATION OF THE CHEMICAL

**HAZARD CLASS****FLAMMABLE LIQUIDS:** Category 1.**ACUTE TOXICITY:** 4 (oral).**SKIN CORROSION:** 2.**SERIOUS EYE DAMAGE:** 1.**SKIN SENSITIZATION:** No.**RESPIRATORY SENSITIZATION:** No.**SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:** 3.**LABEL ELEMENTS HAZARD****PICTOGRAMS:****SIGNAL WORD:** Danger.

**HAZARD STATEMENT:** Highly flammable liquid and vapor. Causes serious eye irritation. Harmful if swallowed. Harmful if inhaled. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. May cause respiratory irritation. Read entire label carefully before use.

**PREVENTION:** Keep only in original container. Do not eat, drink, or smoke when using this product. Wash hands thoroughly after handling. Do not breathe dusts or mists. Wear protective gloves/protective clothing/eye protection/face protection. Use only with good ventilation.

**RESPONSE:** Eliminate all ignition sources. Avoid breathing vapors. Prevent liquid from entering sewers. Absorb spillage to prevent material damage. If swallowed: Do NOT induce vomiting due to risk of aspiration into lungs. Immediately call a poison center/doctor. If on skin (or hair) wash with soap and water. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if symptoms persist. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a poison center/doctor if symptoms persist.

**STORAGE:** Store in original packaging. Keep containers tightly closed. Store in a well ventilated place.

**DISPOSAL:** Dispose of contents and container in accordance with all local, regional, national, and international regulations. We recommend evaporation of the contents in an outdoor location and recycling of the steel container.





Speedline® Corporation

## SAFETY DATA SHEET

DATE ISSUED : 06/12/2015

DATE REVISED : 06/16/2015

### SPEEDLINE WELDING ADHESIVE

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

##### MIXTURES

**Tetrahydrofuran** CAS # 109-99-9 (40-60%)

OSHA PEL 200 PPM

ACGIH TLV 200 PPM

**Methyl Ethyl Ketone** CAS # 78-93-3 (40-60%)

OSHA PEL 200 PPM

ACGIH TLV 200 PPM

Other recommended limits STEL 300 PPM

The exact percentage of composition has been withheld as a trade secret in accordance with paragraph(i) of 1910.1200.

#### 4. FIRST AID MEASURES

##### EMERGENCY AND FIRST AID PROCEDURES:

**EYE:** For contact with eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a poison center/ doctor if symptoms persist.

**SKIN:** For contact with skin (or hair) wash with soap and water.

**INHALATION:** Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if symptoms persist.

**INGESTION:** If swallowed, do NOT induce vomiting due to risk of aspiration into lungs. Immediately call a poison center/doctor.

##### MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

**EYE:** Eye irritant. Symptoms may include discomfort or pain, excessive blinking and tear production, with marked redness and swelling of the conjunctiva.

**SKIN:** Harmful in contact with skin. May cause redness, drying, defatting, and cracking of the skin.

**INHALATION:** May cause drowsiness and dizziness. May cause respiratory irritation. May cause nausea or vomiting.

**INGESTION:** Will cause liver and kidney damage. May cause stomach distress, nausea or vomiting.

##### INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED:

**NOTE TO PHYSICIANS:** Symptoms may not appear immediately.

**SPECIFIC TREATMENTS:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

#### 5. FIRE-FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Dry chemical or carbon dioxide (CO<sub>2</sub>). For large fire use alcohol foam. Water spray may be used to cool containers, but may be ineffective in controlling fire.

##### SPECIAL HAZARDS ARISING FROM THE CHEMICAL

**PRODUCTS OF COMBUSTION:** May generate toxic or irritating combustion products.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Fire hazard because of low flash point, high volatility, and heavy vapor.

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:** Keep upwind of fire. Wear full firefighting turn-out gear (full bunker gear) and respiratory protection (SCBA).



Speedline® Corporation

## SAFETY DATA SHEET

DATE ISSUED : 06/12/2015

DATE REVISED : 06/16/2015

### SPEEDLINE WELDING ADHESIVE

#### 6. ACCIDENTAL RELEASE MEASURES

**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.

##### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP

**METHODS FOR CONTAINMENT:** Use polyethylene bag or containment drum or pail to contain spill. Provide ventilation. Dike area to prevent spreading. Use appropriate Personal Protective Equipment (PPE).

**METHODS FOR CLEANING UP:** Absorb spillage in non-combustible absorbent such as sand or vermiculite, and place in a suitable container for disposal. Allow spilled material to evaporate, providing adequate ventilation and eliminating all ignition sources.

#### 7. HANDLING AND STORAGE

##### PRECAUTIONS FOR SAFE HANDLING

**CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:** Store in original packaging. Keep containers tightly closed. Store in a well ventilated place.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### CONTROL PARAMETERS

**Tetrahydrofuran** CAS # 109-99-9

OSHA PEL 200 PPM

ACGIH TLV 200 PPM

**Methyl Ethyl Ketone** CAS # 78-93-3

OSHA PEL 200 PPM

ACGIH TLV 200 PPM

Other recommended limits STEL 300 PPM

**EXPOSURE CONTROLS:** Use ventilation adequate to keep exposure below recommended exposure limits.

##### INDIVIDUAL PROTECTIVE MEASURES

**RESPIRATORY PROTECTION (SPECIFY TYPE):** None required with normal ventilation. If using where ventilation cannot be supplied, a half-mask respirator with an organic-vapors cartridge is recommended.

**PROTECTIVE GLOVES:** Rubber or PVA.

**EYE PROTECTION:** Chemical safety goggles to prevent splashing in eyes.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Rubber, polyethylene, or Tyvek apron.

**WORK/HYGIENE PRACTICES:** Use good industrial hygiene practice.



Speedline® Corporation

## SAFETY DATA SHEET

DATE ISSUED : 06/12/2015

DATE REVISED : 06/16/2015

### SPEEDLINE WELDING ADHESIVE

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** White or clear liquid. Characteristic ether-like solvent odor.

**COLOR:** White or clear.

**ODOR:** Pungent ether-like solvent odor.

**ODOR THRESHOLD:** 25 PPM.

**PHYSICAL STATE:** Liquid.

**pH:** 7.

**MELTING POINT/FREEZING POINT:** Freeze point is below -40°C.

**BOILING POINT:** 65.5 - 66.5°C.

**FLASH POINT (METHOD USED):** -22°C tag closed cup.

**EVAPORATION RATE (BUTYL ACETATE=1):** 5.5 to 8.

**FLAMMABLE LIMITS AT 25 C:** LEL 1.8% UEL 11.8%.

**VAPOR PRESSURE (MM HG):** 190.

**VAPOR DENSITY (AIR =1):** 2.5.

**RELATIVE DENSITY/SPECIFIC GRAVITY (H<sub>2</sub>O=1):** Approximately 0.9.

**SOLUBILITY:** Miscible.

**PARTITION COEFFICIENT:** n-octanol/water: .45.

**AUTO-IGNITION TEMPERATURE:** The product is not self-igniting.

**DECOMPOSITION TEMPERATURE:** 110°C to 400°C.

**VISCOSITY:** Varies from 100 to 1600 cps depending on formula.

**PERCENT VOLATILE, WT. %:** Approximately 85%.

**VOC CONTENT GRAMS/LITER:** 510.

#### 10. STABILITY AND REACTIVITY

**REACTIVITY:** Reacts with oxidizing agents.

**CHEMICAL STABILITY:** The product is chemically stable.

**POSSIBILITY OF HAZARDOUS REACTIONS:** No dangerous reaction known under conditions of normal use.

**CONDITIONS TO AVOID:** Avoid all sources of ignition: heat sparks, open flame. Avoid electrostatic discharge.

**INCOMPATIBLE MATERIALS:** Aluminum lithium hydride, alkaline-earth metal hydroxides, any oxidizer.

**HAZARDOUS DECOMPOSITION PRODUCTS:** No hazardous decomposition products if stored and handled as prescribed/indicated.



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## SAFETY DATA SHEET

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### SPEEDLINE WELDING ADHESIVE

#### 11. TOXICOLOGICAL INFORMATION

##### INFORMATION ON TOXICOLOGICAL EFFECTS

**LIKELY ROUTES OF EXPOSURE:** Skin contact, skin absorption, eye contact, inhalation, and ingestion.

**ACUTE TOXICITY: Oral:** LD 50. **Rat** 1650 mg/kg.

**INHALATION:** LC 50 Rat >14.7 mg/l.

**DERMAL:** LD 50 Rat >2000 mg/kg.

**IRRITATION/CORROSION:** Rabbit Draize Test - Non-irritant.

**SKIN:** Rabbit Draize Test - Non-irritant.

**EYE:** Rabbit Draize Test - Risk of serious damage to eyes.

**SENSITIZATION:** Mouse Local Lymph Node Assay (LLNA) - Non-sensitizing OECD Guideline 429.

**ASPIRATION HAZARD:** Possible severe lung damage and death if aspirated into lungs.

##### DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

**SKIN CORROSION/IRRITATION:** Causes skin irritation.

**RESPIRATORY SENSITIZATION:** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**SKIN SENSITIZATION:** Non-sensitizing.

**STOT-SINGLE EXPOSURE:** May cause respiratory irritation. May cause drowsiness, dizziness, or nausea.

**CHRONIC HEALTH EFFECTS:** Based on available data, the classification criteria are not met.

**CARCINOGENICITY:** Although rodent testing has shown a tumorigenic effect, these results are thought to be due to a rodent specific liver effect that is not relevant to humans.

**GERM CELL MUTAGENICITY:** Ames test is negative.

**STOT-REPEATED EXPOSURE:** Based on available data, the classification criteria are not met.

**ASPIRATION HAZARD:** Possible severe lung damage and death if aspirated into lungs.

**TOXICOLOGICALLY SYNERGISTIC MATERIALS:** Not available.

**OTHER INFORMATION:** Not available.

#### 12. ECOLOGICAL INFORMATION

**ECOTOXICITY:** May cause long term adverse effect in the aquatic environment

**PERSISTENCE AND DEGRADABILITY:** Not available.

**BIOACCUMULATIVE POTENTIAL:** Because of the n-octanol/water distribution coefficient (log Pow), accumulation in organisms is not to be expected.

**MOBILITY IN SOIL:** Not available.

**OTHER ADVERSE EFFECTS:** Not available.

#### 13. DISPOSAL CONSIDERATIONS

Dispose of contents and container in accordance with all local, regional, national, and international regulations. We recommend evaporation of the contents in an outdoor location and recycling of the steel container.



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#### 14. TRANSPORT INFORMATION

##### US DEPARTMENT OF TRANSPORTATION

**HAZARD CLASS:** 3.**SHIPPING NAME:** Flammable Liquid.**ID NUMBER:** UN1133.**PACKING GROUP:** II.**EXEMPTIONS:** 1 Liter or smaller containers ship as Limited Quantity / ORM-D. No label or placard required. International Limited Quantity Label may also be used.

##### IMDG

**HAZARD CLASS:** 3.**SHIPPING NAME:** Flammable Liquid.**ID NUMBER:** UN1133.**PACKING GROUP:** II.**MARINE POLLUTANT:** No.

##### AIR TRANSPORT IATA/ICAO

**HAZARD CLASS:** 3.**SHIPPING NAME:** Flammable Liquid.**ID NUMBER:** UN1133.**PACKING GROUP:** II.

#### 15. REGULATORY INFORMATION

**REGISTRATION STATUS:** All components of this product are registered under TSCA.**CERCLA RQ:** 1000 lbs CAS Number 109-99-9 Tetrahydrofuran.**REPORTABLE QUANTITY FOR RELEASE:** 1000 lbs.

#### 16. OTHER INFORMATION

##### HMIS:

**H:** 2**F:** 4**R:** 1**PP:** B

##### NFPA:

**H:** 2**F:** 4**R:** 1