



BUILDING TRUST



# Sika Emseal Safety Data Sheet Product Package

## SJS-FP-FR

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Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika Emseal product, which are available at web site and/or telephone number listed in Section 1 of this SDS

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## EMSEAL Joint Systems, Ltd.

25 Bridle Lane, Westborough, MA 01581 USA

[www.emseal.com](http://www.emseal.com)

Preparation Date March 15, 2015

Revision Date March 13, 2019

# Safety Data Sheet SJS-FR Foam

## 1. Identification of the Substance / Preparation

Product identifier	SJS-FR
Other identifier or names	Seismic Joint System-Fire Rated, SJS-FR System
UN ID number	None
Manufacturer Address	EMSEAL LLC 111 Royal Group Crescent Woodbridge, Ontario L4H 1X9 Canada
Company Phone	(508) 836-0280 M-F 9am - 5pm
Emergency Phone	CHEMTREC (800) 424-9300 (24 Hours)

## 2. Hazardous Identification

Hazardous Classification	This product is not classified as hazardous when used as intended.
Signal Word	None
Pictograms	None
Emergency Overview:	No emergency requirements.

## 3. Composition / Information on Ingredients

**SJS-FR foam is composed of polyurethane foam impregnated with a with a proprietary solid inorganic fire retardant bonded to a fully cured silicone sealant. The foam is adhered to a spline and is assembled with a metal coverplate. It is classified as Non-Hazardous.**

**NOTE: Silicone facing is fully cured. The composition of the silicone in its liquid state is comprised of the following:**

Chemical Name	CAS #	% by Weight	GHS Classification Hazard Statements
Polydimethyl Siloxane Diol	70131-67-8 3	0.0-60.0	SELF CLASSIFICATION Classification: Not Applicable
Calcium Carbonate (Limestone)	1317-65-3		SELF CLASSIFICATION
Synthetic Calcium Carbonate	371-34-1	10.0-40.0	Classification: Not Applicable
Phenyl Oximino Silane	34036-80-1	1.0-5.0	Classification: STOT RE Cat. 2, Skin Sensitization Cat. 1, Aquatic, Chronic Toxicity Cat. 3 Hazard Statement Codes: H373, H317, H412
Silicon Dioxide, Fumed	112945-52-5	1.0-5.0	SELF CLASSIFICATION Classification: Not Applicable
Mineral Spirits	8052-41-3	0.0-1.0	Classification: Carcinogenic Cat. 1B, Mutagenic Cat. 1B, Aspiration Hazard Cat. 1 Hazard Statement Codes: H350, H340, H304
Quartz	14808-60-7 14464-46-1	Trace	SELF CLASSIFICATION Classification: Carcinogenic Cat. 1B Hazard Statement Codes: H350

Water and other components.

Each of the other components is present in less than 1 percent concentration (0.1% concentration for potential carcinogens, reproductive toxins, respiratory tract sensitizers, and mutagens).

Classification: Not Applicable



## 4. First Aid Measures

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- 4.1 EYES:** Flush with water for at least 15 minutes, and call physician if problems persist.
- 4.2 SKIN:** Product may leave a sticky residue, and mild irritation if prolonged exposure. Scrub with soapy water until adhesive is removed.
- 4.3 INGESTION:** Do not eat – call physician if ingested.

## 5. Fire-fighting Measures

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- 5.2 FLAMMABILITY:** Slight. The material composition does not support combustion.
- 5.2 FLASH POINT:** Unknown.
- 5.3 AUTO-IGNITION TEMPERATURE:** Unknown.
- 5.4 EXTINGUISHING MEDIA:** Large volumes of water, or ABC chemical may be appropriate for initial control or small volumes of impregnated foam.
- 5.5 HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon di/mon oxides will be formed as well as other noxious and toxic fumes upon combustion – do not breath combustion products.

## 6. Accidental Release Measures

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If material is unusable pick up pieces and dispose of in accordance with local regulations; material and all components are non-toxic and normal landfill will most often be acceptable.

## 7. Handling and Storage

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Store in original packaging below 35°C. There are no special handling instructions.

## 8. Exposure Controls / Personal Protection

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- 8.1 RESPIRATORY PROTECTION:** Not required
- 8.2 EYE PROTECTION:** Not required
- 8.3 SKIN PROTECTION:** Gloves of any material are suitable if desired, but not required. No other protection is required.

## 9. Physical and Chemical Properties

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- 9.1 APPEARANCE:** Dark grey / charcoal colored foam and colored silicone with product identifying packaging.
- 9.2 ODOR:** Slight characteristic odor.
- 9.3 PERCENT SOLIDS BY WEIGHT:** 100%
- 9.4 PHYSICAL STATE:** Solid
- 9.5 PERCENT VOLATILE:** <1% wt/wt
- 9.6 DENSITY:** 0.4g/cm<sup>3</sup>
- 9.7 DECOMPOSITION:** > 300°C
- 9.8 SOLUBILITY IN WATER:** None



## 10. Stability and Reactivity

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Stable under normal conditions – avoid temperatures in excess of 300°C, strong acids and bases, and open flame.

## 11. Toxicological Information

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Unknown.

## 12. Ecological Information

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Unknown

## 13. Disposal Considerations

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No known hazard. Dispose of in accordance with local regulations; material and all components are non-toxic and disposal in normal landfill will most often be acceptable.

## 14. Transportation Information

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Not hazardous – safe for non-hazardous shipping.

## 15. Regulatory Information

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Unknown.

## 16. Other Information

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No other information provided.

## Northern Manufacturing Construction Grade Epoxy Part A

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**1. Identification**

Product name : Northern Manufacturing Construction Grade Epoxy Part A

Supplier : Northern Manufacturing  
111 Royal Group Crescent, Unit NM  
Woodbridge, ON L4H 1X9 Canada

Telephone : 416-740-2090 (8AM - 5PM EST) (M-F)


Emergency telephone : Chemtrec 1-800-424-9300 (24 Hours)

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

**2. Hazards identification****GHS Classification**

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2A	H319: Causes serious eye irritation.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Carcinogenicity, Category 1A (Inhalation)	H350i: May cause cancer by inhalation.
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ systemic toxicity - repeated exposure, Category 1, Lungs	H372: Causes damage to organs through prolonged or repeated exposure.

**GHS label elements**

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H350i May cause cancer by inhalation.  
H372 Causes damage to organs (Lungs) through prolonged or

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repeated exposure.

**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/ fume/ gas/ mist/ vapors/ spray.
  - P264 Wash skin thoroughly after handling.
  - P270 Do not eat, drink or smoke when using this product.
  - P271 Use only outdoors or in a well-ventilated area.
  - P272 Contaminated work clothing must not be allowed out of the workplace.
  - P280 Wear protective gloves/ eye protection/ face protection.
  - P281 Use personal protective equipment as required.
- Response:**
  - P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
  - P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P308 + P313 IF exposed or concerned: Get medical advice/ attention.
  - P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
  - P337 + P313 If eye irritation persists: Get medical advice/ attention.
  - P362 Take off contaminated clothing and wash 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.

See Section 11 for more detailed information on health effects and symptoms.  
 There are no hazards not otherwise classified that have been identified during the classification process.  
 There are no ingredients with unknown acute toxicity used in a mixture at a concentration  $\geq 1\%$ .

### 3. Composition/information on ingredients

**Hazardous ingredients**

Chemical name	CAS-No.	Concentration (%)
Quartz (SiO <sub>2</sub> )	14808-60-7	$\geq 25 - < 50 \%$
bisphenol-A-(epichlorhydrin) epoxy resin	25068-38-6	$\geq 10 - < 20 \%$
oxirane, mono[(C12-14-alkyloxy)methyl]derivatives	68609-97-2	$\geq 5 - < 10 \%$

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

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**4. First aid measures**

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|---|--|
| If inhaled  | : Move to fresh air.<br>Consult a physician after significant exposure.  |
| In case of skin contact                                     | : Take off contaminated clothing and shoes immediately.<br>Wash off with soap and plenty of water.<br>If symptoms persist, call a physician.   |
| In case of eye contact                                      | : Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist.   |
| If swallowed  | : Clean mouth with water and drink afterwards plenty of water.<br>Do not induce vomiting without medical advice.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>Obtain medical attention.  |
| Most important symptoms and effects, both acute and delayed | : irritant effects<br>sensitizing effects<br>carcinogenic effects<br><br>Cough<br>Respiratory disorder<br>Allergic reactions<br>Excessive lachrymation<br>Erythema<br>Dermatitis<br>See Section 11 for more detailed information on health effects and symptoms.<br><br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye irritation.<br>May cause respiratory irritation.<br>May cause cancer by inhalation.<br>Causes damage to organs through prolonged or repeated exposure. |
| Protection of first-aiders                                  | : Move out of dangerous area.<br>Consult a physician.<br>Show this material safety data sheet to the doctor in attendance.   |
| Notes to physician  | : Treat symptomatically.   |



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## 5. Fire-fighting measures

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

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## 6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Deny access to unprotected persons.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
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 (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

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## 7. Handling and storage

- Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).  
Do not get in eyes, on skin, or on clothing.  
For personal protection see section 8.  
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Smoking, eating and drinking should be prohibited in the application area.  
Follow standard hygiene measures when handling chemical products.
- Conditions for safe storage : Prevent unauthorized access.  
Store in original container.  
Keep in a well-ventilated place.  
Observe label precautions.  
Store in accordance with local regulations.
- Materials to avoid : No data available

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## 8. Exposure controls/personal protection

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Quartz (SiO <sub>2</sub> )	14808-60-7	OSHA Z-3	TWA	10 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO <sub>2</sub> +5 respirable
		OSHA P0	TWA	0.1 mg/m <sup>3</sup> Respirable fraction
		ACGIH	TWA	0.025 mg/m <sup>3</sup> Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m <sup>3</sup> Respirable dust

\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

**\*\*Basis**

ACGIH. Threshold Limit Values (TLV)

OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values)

OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant

OSHA P2. Permissible Exposure Limits (PEL), Table Z-2

OSHA Z3. Table Z-3, Mineral Dust

**Engineering measures**

: Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Personal protective equipment**

## Respiratory protection

: Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

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Hand protection Remarks	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eye protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
Skin and body protection	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Hygiene measures	: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas. Wash thoroughly after handling.

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## 9. Physical and chemical properties

Appearance	: paste
Color	: white
Odor	: aromatic
Odor Threshold	: No data available
Flash point	: > 212 °F (> 100 °C)
Ignition temperature	: No data available
Decomposition temperature	: No data available
Lower explosion limit (Vol%)	: No data available
Upper explosion limit (Vol%)	: No data available
Flammability (solid, gas)	: No data available
Oxidizing properties	: No data available
pH	: Note: Not applicable
Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: No data available
Vapor pressure	: 0.01 mmHg (0.01 hpa)
Density	: 1.99 g/cm <sup>3</sup>

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Water solubility	:	Note: insoluble
Partition coefficient: n-octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20.5 mm <sup>2</sup> /s
Relative vapor density	:	No data available
Evaporation rate	:	No data available
Burning rate	:	No data available
Volatile organic compounds (VOC) content	:	5 g/l A+B Combined

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## 10. Stability and reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	No data available
Incompatible materials	:	No data available

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## 11. Toxicological information

### Acute toxicity

Not classified based on available information.

### Components:

#### bisphenol-A-(epichlorhydrin) epoxy resin:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 20,000 mg/kg

### Skin corrosion/irritation

Causes skin irritation.

### Serious eye damage/eye irritation

Causes serious eye irritation.

### Respiratory or skin sensitization

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

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**Germ cell mutagenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

May cause respiratory irritation.

**STOT-repeated exposure**

Causes damage to organs (Lungs) through prolonged or repeated exposure.

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Aspiration toxicity**

Not classified based on available information.

**Carcinogenicity**

May cause cancer by inhalation.

**IARC**

Group 1: Carcinogenic to humans

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

Group 2B: Possibly carcinogenic to humans

**NTP**

titanium dioxide 13463-67-7

Known to be human carcinogen

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

Titanium dioxide (13463-67-7)

In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have been shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that cause lung cancer. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

**12. Ecological information**

## Other information

Do not empty into drains; dispose of this material and its container in a safe way.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Component:**bisphenol-A-  
(epichlorhydrin) epoxy

25068-38-6

Toxicity to fish:  
LC50

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resin

Species: Oncorhynchus mykiss (rainbow trout)  
Dose: 2 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:  
EC50  
Species: Daphnia magna (Water flea)  
Dose: 1.8 mg/l  
Exposure time: 48 h

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## 13. Disposal considerations

### Disposal methods

- Waste from residues : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## 14. Transport information

### DOT

Not dangerous goods

### IATA

Not dangerous goods

### IMDG

Not dangerous goods

### Special precautions for user

No data available

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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## 15. Regulatory information

### TSCA list

: All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

### EPCRA - Emergency Planning and Community Right-to-Know

### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

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### SARA304 Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Chronic Health Hazard  
 Skin corrosion or irritation  
 Serious eye damage or eye irritation  
 Respiratory or skin sensitization  
 Carcinogenicity  
 Specific target organ toxicity (single or repeated exposure)

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**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

**Ozone-Depletion Potential** 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).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (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:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## 16. Other information

### HMIS Classification

<b>Health</b>	*	3
<b>Flammability</b>		1
<b>Physical Hazard</b>		0
<b>Personal Protection</b>		x

**Caution:** HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

### Notes to Reader

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Material number: 577437



# Northern Manufacturing Construction Grade Epoxy Part B

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Print Date 12/05/2019

## 1. Identification

Product name : Northern Manufacturing Construction Grade Epoxy Part B

Supplier : Northern Manufacturing  
111 Royal Group Crescent, Unit NM  
Woodbridge, ON L4H 1X9 Canada

Telephone : 416-740-2090 (8AM - 5PM EST) (M-F)

Emergency telephone : Chemtrec 1-800-424-9300 (24 Hours)

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

## 2. Hazards identification

### GHS Classification

Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Carcinogenicity, Category 1A (Inhalation)	H350i: May cause cancer by inhalation.
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ systemic toxicity - repeated exposure, Category 1, Lungs	H372: Causes damage to organs through prolonged or repeated exposure.

### GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H350i May cause cancer by inhalation.  
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure.

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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/ fume/ gas/ mist/ vapors/ spray.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
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): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P310 Immediately call a POISON CENTER/doctor.  
P333 + P313 If skin irritation or rash occurs: 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.

Warning : Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain,liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

See Section 11 for more detailed information on health effects and symptoms.  
There are no hazards not otherwise classified that have been identified during the classification process.  
There are no ingredients with unknown acute toxicity used in a mixture at a concentration  $\geq$  1%.

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**3. Composition/information on ingredients****Hazardous ingredients**

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Chemical name	CAS-No.	Concentration (%)
Quartz (SiO <sub>2</sub> )	14808-60-7	>= 25 - < 50 %
N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine	10563-29-8	>= 3 - < 5 %
m-phenylenebis(methylamine)	1477-55-0	>= 1 - < 2 %
Benzyl alcohol	100-51-6	>= 1 - < 2 %
salicylic acid	69-72-7	>= 1 - < 2 %
triethylenetetramine	112-24-3	>= 0.1 - < 1 %

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

#### 4. First aid measures

- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Continue rinsing eyes during transport to hospital.  
Remove contact lenses.  
Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not induce vomiting without medical advice.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Health injuries may be delayed.  
corrosive effects  
irritant effects  
sensitizing effects  
carcinogenic effects
- Cough  
Respiratory disorder  
Allergic reactions  
Dermatitis  
See Section 11 for more detailed information on health effects and symptoms.
- May cause an allergic skin reaction.  
Causes serious eye damage.

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May cause respiratory irritation.  
May cause cancer by inhalation.  
Causes damage to organs through prolonged or repeated exposure.  
Causes severe burns.

Protection of first-aiders : Move out of dangerous area.  
Consult a physician.  
Show this material safety data sheet to the doctor in attendance.

Notes to physician : Treat symptomatically.

---

**5. Fire-fighting measures**

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

Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

---

**6. Accidental release measures**

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Deny access to unprotected persons.

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
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 (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

---

**7. Handling and storage**

Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).  
Do not get in eyes, on skin, or on clothing.  
For personal protection see section 8.  
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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## Northern Manufacturing Construction Grade Epoxy Part B

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Smoking, eating and drinking should be prohibited in the application area.  
Follow standard hygiene measures when handling chemical products.

Conditions for safe storage : Prevent unauthorized access.  
Store in original container.  
Keep in a well-ventilated place.  
Observe label precautions.  
Store in accordance with local regulations.

Materials to avoid : No data available

## 8. Exposure controls/personal protection

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Quartz (SiO <sub>2</sub> )	14808-60-7	OSHA Z-3	TWA	10 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO <sub>2</sub> +5 respirable
		OSHA P0	TWA	0.1 mg/m <sup>3</sup> Respirable fraction
		ACGIH	TWA	0.025 mg/m <sup>3</sup> Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m <sup>3</sup> Respirable dust
m-phenylenebis(methylamine)	1477-55-0	ACGIH	C	0.1 mg/m <sup>3</sup>
		OSHA P0	C	0.1 mg/m <sup>3</sup>

\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

**\*\*Basis**

ACGIH. Threshold Limit Values (TLV)

OSHA P0. Table Z-1, Limit for Air Contaminant (1989 Vacated Values)

OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant

OSHA P2. Permissible Exposure Limits (PEL), Table Z-2

OSHA Z3. Table Z-3, Mineral Dust

# Northern Manufacturing Construction Grade Epoxy Part B

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**Engineering measures** : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Personal protective equipment**

**Respiratory protection** : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

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

**Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

**Skin and body protection** : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**Hygiene measures** : Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.  
Remove contaminated clothing and protective equipment before entering eating areas.  
Wash thoroughly after handling.

---

**9. Physical and chemical properties**

- Appearance : paste
- Color : dark gray
- Odor : amine-like
- Odor Threshold : No data available
- Flash point : > 212 °F (> 100 °C)
- Ignition temperature : No data available
- Decomposition temperature : No data available

**Northern Manufacturing Construction Grade Epoxy Part B**

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Lower explosion limit (Vol%)	: No data available
Upper explosion limit (Vol%)	: No data available
Flammability (solid, gas)	: No data available
Oxidizing properties	: No data available
pH	: Note: Not applicable
Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: No data available
Vapor pressure	: 0.01 mmHg (0.01 hpa)
Density	: 2.01 g/cm3
Water solubility	: Note: slightly soluble
Partition coefficient: n- octanol/water	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm2/s
Relative vapor density	: No data available
Evaporation rate	: No data available
Burning rate	: No data available
Volatile organic compounds (VOC) content	: 5 g/l A+B Combined

---

**10. Stability and reactivity**

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Stable under recommended storage conditions.
Conditions to avoid	: No data available
Incompatible materials	: No data available

---

**11. Toxicological information****Acute toxicity**

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Not classified based on available information.

**Components:****m-phenylenebis(methylamine):**

Acute oral toxicity : LD50 Oral (Rat): 930 mg/kg

Acute inhalation toxicity : LC50 (Rat): 1.34 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rat): > 3,100 mg/kg

**Benzyl alcohol:**

Acute oral toxicity : LD50 Oral (Rat): 1,620 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 4.178 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

**salicylic acid:**

Acute oral toxicity : LD50 Oral (Rat): 891 mg/kg

Acute dermal toxicity : LD50 Dermal (Rat): > 2,000 mg/kg

**triethylenetetramine:**

Acute oral toxicity : LD50 Oral (Rat): 1,716 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 1,465 mg/kg

**Skin corrosion/irritation**

Causes severe burns.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Respiratory or skin sensitization**

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

May cause respiratory irritation.

**STOT-repeated exposure**

Causes damage to organs (Lungs) through prolonged or repeated exposure.

Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.



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**Aspiration toxicity**

Not classified based on available information.

**Carcinogenicity**

May cause cancer by inhalation.

**IARC**

Group 1: Carcinogenic to humans

**NTP**Quartz (SiO<sub>2</sub>) 14808-60-7  
Known to be human carcinogenQuartz (SiO<sub>2</sub>) 14808-60-7**12. Ecological information**

## Other information

Do not empty into drains; dispose of this material and its container in a safe way.  
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.**Component:**m-phenylenebis(methylamine)  
1477-55-0Toxicity to fish:  
LC50  
Species: Oryzias latipes (Japanese medaka)  
Dose: > 10 - 100 mg/l  
Exposure time: 96 hToxicity to daphnia and other aquatic invertebrates:  
EC50  
Species: Daphnia magna (Water flea)  
Dose: > 10 - 100 mg/l  
Exposure time: 48 h

Benzyl alcohol 100-51-6

Toxicity to fish:  
LC50  
Species: Fish  
Dose: > 100 mg/l  
Exposure time: 96 hToxicity to daphnia and other aquatic invertebrates:  
EC50  
Species: Daphnia magna (Water flea)  
Dose: > 100 mg/l  
Exposure time: 48 h

triethylenetetramine 112-24-3

Toxicity to fish:  
LC50  
Species: Pimephales promelas (fathead minnow)  
Dose: > 100 mg/l  
Exposure time: 96 hToxicity to daphnia and other aquatic invertebrates:  
EC50  
Species: Daphnia  
Dose: 10 - 100 mg/l  
Exposure time: 48 hToxicity to algae:  
EC50

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Species: Pseudokirchneriella subcapitata (green algae)  
 Dose: 10 - 100 mg/l  
 Exposure time: 72 h

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**13. Disposal considerations**
**Disposal methods**

- Waste from residues : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

---

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

UN number	1760
Description of the goods	Corrosive liquids, n.o.s. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine, m-phenylenebis(methylamine))
Class	8
Packing group	III
Labels	8
Emergency Response Guidebook Number	154

**IATA**

UN number	1760
Description of the goods	Corrosive liquid, n.o.s. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine, m-phenylenebis(methylamine))
Class	8
Packing group	III
Labels	8
Packing instruction (cargo aircraft)	856
Packing instruction (passenger aircraft)	852
Packing instruction (passenger aircraft)	Y841

**IMDG**

UN number	1760
Description of the goods	CORROSIVE LIQUID, N.O.S. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine, m-phenylenebis(methylamine))

**Northern Manufacturing Construction Grade Epoxy Part B**

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Class	8
Packing group	III
Labels	8
EmS Number 1	F-A
EmS Number 2	S-B

Marine pollutant	no
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DOT: For Limited Quantity exceptions reference 49 CFR 173.154 (b)

IMDG: For Limited Quantity special provisions reference IMDG Code Chapter 3.4

**Special precautions for user**

No data available

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

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**15. Regulatory information**

**TSCA list** : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA304 Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Chronic Health Hazard  
 Skin corrosion or irritation  
 Serious eye damage or eye irritation  
 Respiratory or skin sensitization  
 Carcinogenicity  
 Specific target organ toxicity (single or repeated exposure)

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**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**

# Northern Manufacturing Construction Grade Epoxy Part B

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**Ozone-Depletion Potential**

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).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (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:** Cancer – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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**16. Other information**

**HMIS Classification**

<b>Health</b>	*	3
<b>Flammability</b>		1
<b>Physical Hazard</b>		0
<b>Personal Protection</b>		X

**Caution:** HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

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Revision Date 12/05/2019

Material number: 579211



# Setting Bed A SAFETY DATA SHEET

Issuing Date 10-Sep-2015

Revision Date 06-Nov-2015

Revision Number 2

## 1. Identification of the Substance/Preparation and of the Company/Undertaking

### Product identifier

**Product Name** Expansion Joint Setting Bed A

### Other means of identification

**Product Code(s)** SETBED A

**Product Technology** Epoxy A side

None

FOR INDUSTRIAL USE ONLY.

Restrictions on use: Do not use this product for any use other than intended

### **Manufacturer Address**

Emseal Joint  
Systems, LTD  
25 Bridle Lane  
Westborough, MA 01581  
USA

**Company Phone Numbe:** 508-836-0280

**Emergency Telephone:** Chemtrec 1-800-424-9300 (24 Hours)

## 2. Hazards Identification

### Classification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS). This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

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

## Emergency Overview

### **WARNING**

#### **Hazard statements**

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction



<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Ingestion</b>	Not an expected route of exposure. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a physician or Poison Control Center immediately.
<b>Self-protection of the first aider</b>	First Aider: Pay attention to self-protection. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

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

**Symptoms** May cause allergic skin reaction.

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

**Note to physicians** Treat symptomatically.

## 5. Fire-Fighting Measures

**Suitable Extinguishing Media**

Foam, Dry Chemical, Carbon Dioxide (CO<sub>2</sub>);

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**

Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water ways. Dike for water control.

**Hazardous combustion products**

Irritating or toxic substances may be emitted upon burning, combustion or decomposition. See Section 10 Hazardous Decomposition Products for additional information.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

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

## 6. Accidental Release Measures

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

**Personal precautions** Ensure adequate ventilation, especially in confined areas.

**Other Information** Use personal protective equipment as required.

**For Emergency Responders** Use personal protective equipment as required.

**Environmental precautions**

**Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional Ecological Information.

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

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

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and Storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a cool, well-ventilated place. Store and handle away from heat, flames and oxidizing materials.

**Incompatible materials** Acids; Bases; Strong oxidizing agents;

## 8. Exposure Controls/Personal Protection

### Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems

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

**Eye/face protection** Splash Goggles. Avoid contact with eyes.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid	<b>Odor</b>	Mild
<b>Appearance</b>	Opaque	<b>Odor threshold</b>	N/A
<b>Color</b>	Grey		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	N/A	
Melting point / freezing point	N/A	
Boiling point / boiling range	> 250 °C	
Flash point	> 220 °C	
Evaporation rate	N/A	
Flammability (solid, gas)	N/A	
Flammability Limit in Air		
Upper flammability limit:	N/A	
Lower flammability limit:	N/A	
Vapor pressure	N/A	
Vapor density	N/A	



<b>Relative density</b>	1.18
<b>Water solubility</b>	Negligible
<b>Solubility in other solvents</b>	N/A
<b>Partition coefficient</b>	N/A
<b>Autoignition temperature</b>	N/A
<b>Decomposition temperature</b>	N/A
<b>Kinematic viscosity</b>	N/A
<b>Dynamic viscosity</b>	N/A
<b>Explosive properties</b>	Not an explosive
<b>Oxidizing properties</b>	N/A

**Other Information**

<b>Softening point</b>	N/A
<b>Molecular weight</b>	N/A
<b>VOC Content (%)</b>	N/A
<b>Liquid Density</b>	9.84 pounds/gallon
<b>Bulk density</b>	N/A

**10. Stability and Reactivity**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Keep out of reach of children. Incompatible materials. Extremes of temperature and direct sunlight.

**Incompatible materials**

Acids; Bases; Strong oxidizing agents;

**Hazardous decomposition products**

Carbon oxides; Nitrogen oxides (NOx). Aldehydes. Aromatic hydrocarbons. May emit toxic fumes under fire conditions.

**11. Toxicological Information**

**Information on likely routes of exposure**

<b>Product Information</b>	The product has not been tested.
<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Vapor may cause irritation. Avoid contact with eyes. Contact with eyes may cause irritation.
<b>Skin contact</b>	Avoid contact with skin. May cause irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
<b>Ingestion</b>	Not an expected route of exposure. Do NOT taste or swallow. May be harmful if swallowed.
<b>Component Information</b>	Caution - This preparation contains a substance not yet fully tested

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Bisphenol A diglycidyl ether resin 25068-38-6	= 11400 mg/kg ( Rat )	-	-

**Information on toxicological effects**

N/A.

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

<b>Skin corrosion/irritation</b>	Irritating to skin. Repeated or prolonged contact may cause skin irritation and dermatitis.
<b>Serious eye damage/eye irritation</b>	Irritating to eyes.
<b>Irritation</b>	Irritating to eyes and skin.
<b>Sensitization</b>	May cause sensitization by skin contact.
<b>Germ cell mutagenicity</b>	N/A.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
<b>Reproductive toxicity</b>	N/A.
<b>STOT - single exposure</b>	N/A.
<b>STOT - repeated exposure</b>	N/A.
<b>Chronic Toxicity</b>	Repeated skin contact may lead to irritation and to sensitization, possible with cross-sensitization to other epoxies.
<b>Target organ effects</b>	Eyes, Skin.
<b>Aspiration hazard</b>	N/A.

#### **Numerical measures of toxicity - Product Information**

<b>Unknown acute toxicity</b>	5.00000532% of the mixture consists of ingredient(s) of unknown toxicity
<b>The following values are calculated based on chapter 3.1 of the GHS document</b>	
<b>ATEmix (oral)</b>	12,030.00 mg/kg mg/l

### **12. Ecological Information**

#### **Ecotoxicity**

N/A  
5.23999 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

#### **Persistence and degradability**

N/A

#### **Other adverse effects**

N/A

**Ozone depletion potential (ODP)** N/A

### **13. Disposal Considerations**

#### **Waste treatment methods**

<b>Disposal of Wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Do not reuse container.

### **14. Transport Information**

**Note:** A197 - Not restricted provided that the net quantity in any receptacle does not exceed 5 Kg or 5 L and the packaging meets defined standards.

**DOT** Not regulated

**ICAO (air)**

**IATA**

<b>UN/ID no.</b>	UN3082
<b>Proper shipping name</b>	Environmentally Hazardous substance Liquid N.O.S. (Bisphenol A epoxy resin)
<b>Hazard Class</b>	9
<b>Packing Group</b>	III

**IMDG**

<b>UN/ID no.</b>	UN3082
<b>Proper shipping name</b>	Environmentally Hazardous Substance Liquid N.O.S. (Bisphenol A epoxy resin)
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Marine pollutant</b>	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

## 15. Regulatory Information

**International Inventories**

**TSCA** All components of this product are either exempt or included on the TSCA Inventory in compliance with the Toxic Substances Control Act.

**Legend:**

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

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

**US Federal Regulations****SARA 313**

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

**SARA 311/312 Hazard Categories**

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

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

The following chemicals may be contained in this product in de minimis amounts not required for listing in section 3. However, these chemicals do appear on some state Right-to-Know (RTK) and/or other hazardous substance lists. Please check your state's listings for more information.

**California Proposition 65**

This product contains the following Proposition 65 chemicals

<b>Chemical name</b>	<b>California Proposition 65</b>
Titanium dioxide - 13463-67-7	Carcinogen
Carbon Black - 1333-86-4	Carcinogen
Glycidyl phenyl ether - 122-60-1	Carcinogen Male Reproductive
Epichlorohydrin - 106-89-8	Carcinogen Male Reproductive
Silicon dioxide - 14808-60-7	Carcinogen

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

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other Information**

<b><u>NFPA</u></b>	Health hazards 2	Flammability 1	Instability 0	Physical and chemical properties -
<b><u>HMIS</u></b>	Health hazards 2*	Flammability 1	Physical hazards 0	Personal Protection X
<i>Chronic Hazard Star Legend</i>	<i>* = Chronic Health Hazard</i>			

Prepared By	Compliance
Issuing Date	10-Sep-2015
Revision Date	06-Nov-2015

**Revision Note**

N/A

**Disclaimer**

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

**End of Safety Data Sheet**



# Setting Bed B SAFETY DATA SHEET

Issuing Date 10-Sep-2015

Revision Date 06-Nov-2015

Revision Number 1

## 1. Identification of the Substance/Preparation and of the Company/Undertaking

**Product identifier**

**Product Name** Expansion Joint Setting Bed B

**Other means of identification**

**Product Code(s)** SETBED B  
**Product Technology** Epoxy B side  
 None

Curing chemical. FOR INDUSTRIAL USE ONLY.  
 Restrictions on use: Do not use this product for any use other than intended

**Manufacturer Address**

Emseal Joint  
 Systems, LTD  
 25 Bridle Ln  
 Westborough, MA 01581,  
 USA

**Company Phone Number** 508-836-0280

**Emergency Telephone** Chemtrec 1-800-424-9300 (24 Hours)

## 2. Hazards Identification

**Classification**

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS). This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Skin sensitization	Category 1

## Emergency Overview

**DANGER**

**Hazard statements**

Causes severe skin burns and eye damage  
 May cause an allergic skin reaction  
 Harmful if inhaled  
 Harmful if swallowed



**Appearance** Clear Light yellow

**Physical state** Liquid

**Odor** Mild amine odor

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Use only outdoors or in a well-ventilated area  
 Do not breathe dust, fumes, or vapors  
 Wear protective gloves, protective clothing, eye protection, face protection  
 Contaminated work clothing should not be allowed out of the workplace

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician  
 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  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

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

**Hazards Not Otherwise Classified (HNOC)**

**Other Information**

Toxic to aquatic life with long lasting effects  
 72% of the mixture consists of ingredient(s) of unknown toxicity

**3. Composition/Information on Ingredients**

**Substance**

**Chemical Family** Epoxy B Side

Chemical name	CAS No.	Weight-%	Trade secret
m-Xylylenediamine	1477-55-0	15 - 30	*
1,4,7,10,13-Pentaazatridecane	112-57-2	1 - 10	*

\* The exact percentage (concentration) of composition may have been withheld as a trade secret.

**4. First Aid Measures**

**Description of first aid measures**

<b>General advice</b>	Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation persists.
<b>Skin contact</b>	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If symptoms persist, call a physician. Wash contaminated clothing before reuse.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Administer oxygen if breathing is difficult. If symptoms persist, call a physician.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a physician or Poison Control Center immediately.
<b>Self-protection of the first aider</b>	First Aider: Pay attention to self-protection. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

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

**Symptoms** May cause allergic skin reaction.

### **Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## **5. Fire-Fighting Measures**

### **Suitable Extinguishing Media**

Foam, Dry Chemical, Carbon Dioxide (CO<sub>2</sub>);

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

### **Specific hazards arising from the chemical**

Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water ways. Dike for water control.

### **Hazardous combustion products**

Irritating or toxic substances may be emitted upon burning, combustion or decomposition. See Section 10 Hazardous Decomposition Products for additional information.

### **Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### **Protective equipment and precautions for firefighters**

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

## **6. Accidental Release Measures**

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

**Personal precautions** Ensure adequate ventilation, especially in confined areas.

**Other Information** Use personal protective equipment as required.

**For Emergency Responders** Use personal protective equipment as required.

### Environmental precautions

**Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

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

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and Storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

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

**Incompatible materials** Acids; Bases; Strong oxidizing agents;

## 8. Exposure Controls/Personal Protection

### Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
m-Xylylenediamine 1477-55-0	S* Ceiling: 0.1 mg/m <sup>3</sup>	(vacated) S* (vacated) Ceiling: 0.1 mg/m <sup>3</sup>	Ceiling: 0.1 mg/m <sup>3</sup>

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems

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

**Eye/face protection** Splash Goggles. Avoid contact with eyes.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid	<b>Odor</b>	Mild amine odor
<b>Appearance</b>	Clear	<b>Odor threshold</b>	N/A
<b>Color</b>	Light yellow		



<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	10.5	
Melting point / freezing point	N/A	
Boiling point / boiling range	N/A	
Flash point	> 110 °C	
Evaporation rate	N/A	
Flammability (solid, gas)	N/A	
Flammability Limit in Air		
Upper flammability limit:	N/A	
Lower flammability limit:	N/A	
Vapor pressure	N/A	
Vapor density	N/A	
Relative density	0.98	
Water solubility	Negligible	
Solubility in other solvents	N/A	
Partition coefficient	N/A	
Autoignition temperature	N/A	
Decomposition temperature	N/A	
Kinematic viscosity	459 cSt	
Dynamic viscosity	450 cps @ 25° C	
Explosive properties	Not an explosive	
Oxidizing properties	N/A	

**Other Information**

Softening point	N/A
Molecular weight	N/A
VOC Content (%)	N/A
Liquid Density	8.23 pounds/gallon
Bulk density	N/A

**10. Stability and Reactivity****Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Keep out of reach of children. Avoid moisture. Incompatible materials.

**Incompatible materials**

Acids; Bases; Strong oxidizing agents;

**Hazardous decomposition products**

Carbon oxides; Nitrogen oxides (NOx). Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

**11. Toxicological Information****Information on likely routes of exposure**

<b>Product Information</b>	The product has not been tested.
<b>Inhalation</b>	Remove to fresh air. Harmful by inhalation.
<b>Eye contact</b>	Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness.
<b>Skin contact</b>	Avoid contact with skin. Repeated or prolonged skin contact may cause allergic reactions

with susceptible persons. Causes burns.

**Ingestion**

Not an expected route of exposure. Do NOT taste or swallow. Harmful if swallowed.

**Component Information**

Caution - This preparation contains a substance not yet fully tested

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
m-Xylylenediamine 1477-55-0	= 1040 mg/kg ( Rat )	= 2 g/kg ( Rabbit )	= 2.4 mg/kg ( Rat ) 4 h
1,4,7,10,13-Pentaazatridecane 112-57-2	= 3990 mg/kg ( Rat )	= 660 µL/kg ( Rabbit )	-

**Information on toxicological effects**

N/A.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Irritating to skin. Repeated or prolonged contact may cause skin irritation and dermatitis. Causes burns.

**Serious eye damage/eye irritation**

Irritating to eyes. Risk of serious damage to eyes.

**Irritation**

Irritating to eyes and skin.

**Corrosivity**

Corrosive to living tissue.

**Sensitization**

May cause sensitization by skin contact.

**Germ cell mutagenicity**

N/A.

**Carcinogenicity**

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Reproductive toxicity**

N/A.

**STOT - single exposure**

N/A.

**STOT - repeated exposure**

N/A.

**Chronic Toxicity**

Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

**Target organ effects**

Eyes, Skin.

**Aspiration hazard**

N/A.

**Numerical measures of toxicity - Product Information****Unknown acute toxicity**

72% of the mixture consists of ingredient(s) of unknown toxicity

**The following values are calculated based on chapter 3.1 of the GHS document****ATEmix (oral)**

618.00 mg/kg

**ATEmix (dermal)**

1,702.00 mg/kg

**ATEmix (inhalation-dust/mist)**

0.64 mg/l

**ATEmix (inhalation-vapor)**

445.00 mg/l

## 12. Ecological Information

**Ecotoxicity**

N/A

94 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
1,4,7,10,13-Pentaazatridecane 112-57-2	2.1: 72 h Pseudokirchneriella subcapitata mg/L EC50	420: 96 h Poecilia reticulata mg/L LC50 static	24.1: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

N/A

Chemical name	Partition coefficient
1,4,7,10,13-Pentaazatridecane 112-57-2	1

**Other adverse effects**

N/A

Ozone depletion potential (ODP) N/A

**13. Disposal Considerations**

**Waste treatment methods**

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

**Contaminated packaging** Do not reuse container.

**14. Transport Information**

**DOT** Not regulated

**ICAO (air)** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**15. Regulatory Information**

**International Inventories**

**TSCA** All components of this product are either exempt or included on the TSCA Inventory in compliance with the Toxic Substances Control Act.

**Legend:**

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

**US Federal Regulations**

**SARA 313**

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

**SARA 311/312 Hazard Categories**

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

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

The following chemicals may be contained in this product in de minimis amounts not required for listing in section 3. However, these chemicals do appear on some state Right-to-Know (RTK) and/or other hazardous substance lists. Please check your state's listings for more information.

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
m-Xylylenediamine 1477-55-0	X	X	X
1,4,7,10,13-Pentaazatridecane 112-57-2	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other Information**

<b><u>NFPA</u></b>	Health hazards 2	Flammability 1	Instability 0	Physical and chemical properties - Personal Protection X
<b><u>HMIS</u></b>	Health hazards 2	Flammability 1	Physical hazards 0	

Prepared By	Compliance
Issuing Date	10-Sep-2015
Revision Date	06-Nov-2015

**Revision Note**

N/A

**Disclaimer**

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

**End of Safety Data Sheet**



# EMSEAL

EMSEAL Joint Systems, Ltd.

25 Bridle Lane, Westborough, MA 01581

[www.emseal.com](http://www.emseal.com)

## Safety Data Sheet

Issue Date 19-Jan-2015

Revision Date 31-Jul-2015

### 1. IDENTIFICATION

**Chemical Name or Synonym:**

Crystalline Silica (Quartz), Sand, Silica Sand, Flint, Ground Silica, Fine Ground Silica, Silica Flour.

THIS PRODUCT IS A COMPONENT OF THE EMCRETE SYSTEM. IT HAS BEEN SOURCED FROM AN OEM. IT IS NOT INTENDED FOR ANY USE HEREIN OTHER THAN ITS EMCRETE APPLICATION. CONTENT IN THIS SHEET IS PROVIDED BY AND VERIFIED BY THE OEM SOURCE.

**Product Identifier**

**Product name** Crystalline Sand (Quartz)

**Other Means of Identification**

**Product Code** Crystalline Sand (Quartz)

FOR INDUSTRIAL USE ONLY. This product contains isocyanates.  
Restrictions on use: Do not use this product for any use other than intended

**Manufacturer Address**

EMSEAL Joint Systems, Ltd.  
25 Bridle Lane, Westborough,  
MA 01581 USA

**Company Phone Number** 508-836-0280 (9AM - 5PM EST) (M-F)

**Emergency Telephone** Chemtrec 1-800-424-9300 (24 Hours)

### 2. HAZARD(S) IDENTIFICATION

**Classification:**

Physical	Health
Not Hazardous	Carcinogen Category 1A Specific Target Organ Toxicity – Repeated Exposure Category 1



**DANGER**

May cause cancer by inhalation.  
Causes damage to lungs through prolonged or repeated exposure by inhalation.

**Response:**

If exposed or concerned: Get medical advice.

**Disposal:**

Dispose of contents/containers in accordance with local regulation

**Prevention**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves and safety glasses or goggles.  
In case of inadequate ventilation wear respiratory protection.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	Percent
Crystalline Silica (quartz)	14808-60-7	95-99.9

### 4. FIRST-AID MEASURES

**Inhalation:** First aid is not generally required. If irritation develops from breathing dust, move the person from the overexposure and seek medical attention if needed.

**Skin contact:** First aid is not required.

**Eye contact:** Wash immediately with plenty of water. Do not rub eyes. If irritation persists, seek medical attention.

**Ingestion:** First aid is not required.

**Most important symptoms/effects, acute and delayed:** Particulates may cause abrasive eye injury. Inhalation of dust may cause respiratory tract irritation. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing, wheezing and shortness of breath. Prolonged inhalation of respirable crystalline silica above certain concentrations may cause lung diseases, including silicosis and lung cancer.

**Indication of immediate medical attention and special treatment, if necessary:** Immediate medical attention is not required.

### 5. FIRE-FIGHTING MEASURES

**Suitable (and unsuitable) extinguishing media:** Use extinguishing media appropriate for surrounding fire.

**Specific hazards arising from the chemical:** Product is not flammable, combustible or explosive.

**Special protective equipment and precautions for fire-fighters:** None required.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Wear appropriate protective clothing and respiratory protection (see Section 8). Avoid generating airborne dust during clean-up.

**Environmental precautions:** No specific precautions. Report releases to regulatory authorities if required by local, state and federal regulations.

**Methods and materials for containment and cleaning up:** Avoid dry sweeping. Do not use compressed air to clean spilled sand or ground silica. Use water spraying/flushing or ventilated or HEPA filtered vacuum cleaning system, or wet before sweeping. Dispose of in closed containers.

### 7. HANDLING AND STORAGE

**Precautions for safe handling:**

Avoid generating dust. Do not breathe dust. Do not rely on your sight to determine if dust is in the air. Respirable crystalline silica dust may be in the air without a visible dust cloud. Use adequate exhaust

ventilation and dust collection to reduce respirable crystalline silica dust levels to below the permissible exposure limit (“PEL”). Maintain and test ventilation and dust collection equipment. Use all available work practices to control dust exposures, such as water sprays. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Keep airborne dust concentrations below permissible exposure limits.

Where necessary to reduce exposures below the PEL or other applicable limit (if lower than the PEL), wear a respirator approved for silica containing dust when using, handling, storing or disposing of this product or bag. See Section 8, for further information on respirators. Do not alter the respirator. Do not wear a tight-fitting respirator with facial hair such as a beard or mustache that prevents a good face to face piece seal between the respirator and face. Maintain, clean, and fit test respirators in accordance with applicable standards. Wash or vacuum clothing that has become dusty.

Participate in training, exposure monitoring, and health surveillance programs to monitor any potential adverse health effects that may be caused by breathing respirable crystalline silica. The OSHA Hazard Communication Standard, 29 CFR Sections 1910.1200, 1915.1200, 1917.28, 1918.90, 1926.59 and 1928.21, and state and local worker or community "right-to-know" laws and regulations should be strictly followed.

**Conditions for safe storage, including any incompatibilities:** Use dust collection to trap dust produced during loading and unloading. Keep containers closed and store bags to avoid accidental tearing, breaking, or bursting.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure guidelines:**

Component	OSHA PEL	ACGIH TLV	NIOSH REL
Crystalline Silica (quartz)	10 mg/m <sup>3</sup> %SiO <sub>2</sub> + 2 TWA (respirable dust)	0.025 mg/m <sup>3</sup> TWA (respirable dust)	0.05 mg/m <sup>3</sup> TWA (respirable dust)
	30 mg/m <sup>3</sup> %SiO <sub>2</sub> + 2 TWA (total dust)		

If crystalline silica (quartz) is heated to more than 870°C, quartz can change to a form of crystalline silica known as tridymite; if crystalline silica (quartz) is heated to more than 1470°C, quartz can change to a form of crystalline silica known as cristobalite. The OSHA PEL for crystalline silica as tridymite or cristobalite is one-half of the OSHA PEL for crystalline silica (quartz).

**Appropriate engineering controls:** Use adequate general or local exhaust ventilation to maintain concentrations in the workplace below the applicable exposure limits listed above.

**Respiratory protection:** If it is not possible to reduce airborne exposure levels to below the OSHA PEL or other applicable limit with ventilation, use the table below to assist you in selecting respirators that will reduce personal exposures to below the OSHA PEL. This table is part of the NIOSH Respirator Selection Logic, 2004, Chapter III, Table 1, “Particulate Respirators”. The full document can be found at [www.cdc.gov/niosh/nppt/topics/respirators](http://www.cdc.gov/niosh/nppt/topics/respirators); the user of this MSDS is directed to that site for information concerning respirator selection and use. The assigned protection factor (APF) is the maximum anticipated level

of protection provided by each type of respirator worn in accordance with an adequate respiratory protection program. For example, an APF of 10 means that the respirator should reduce the airborne concentration of a particulate by a factor of 10, so that if the workplace concentration of a particulate was 150 ug/m<sup>3</sup>, then a respirator with an APF of 10 should reduce the concentration of particulate to 15 ug/m<sup>3</sup>. In using chemical cartridges, consideration must be given to selection of the correct cartridge for the chemical exposure and the maximum use concentration for the cartridge. In addition a cartridge change-out schedule must be developed based on the concentrations in the workplace.

Assigned protection factor <sup>1</sup>	Type of Respirator (Use only NIOSH-certified respirators)
10	Any air-purifying elastomeric half-mask respirator equipped with appropriate type of particulate filter. <sup>2</sup> Appropriate filtering facepiece respirator. <sup>2,3</sup> Any air-purifying full facepiece respirator equipped with appropriate type of particulate filter. <sup>2</sup> Any negative pressure (demand) supplied-air respirator equipped with a half-mask.
25	Any powered air-purifying respirator equipped with a hood or helmet and a high efficiency (HEPA) filter. Any continuous flow supplied-air respirator equipped with a hood or helmet.
50	Any air-purifying full facepiece respirator equipped with N-100, R-100, or P-100 filter(s). Any powered air-purifying respirator equipped with a tight-fitting facepiece (half or full facepiece) and a high-efficiency filter. Any negative pressure (demand) supplied-air respirator equipped with a full facepiece. Any continuous flow supplied-air respirator equipped with a tight-fitting facepiece (half or full facepiece). Any negative pressure (demand) self-contained respirator equipped with a full facepiece.
1,000	pressure-demand supplied-air respirator equipped with a half-mask.
1. The protection offered by a given respirator is contingent upon (1) the respirator user adhering to complete program requirements (such as the ones required by OSHA in 29CFR1910.134), (2) the use of NIOSH-certified respirators in their approved configuration, and (3) individual fit testing to rule out those respirators that cannot achieve a good fit on individual workers. 2. Appropriate means that the filter medium will provide protection against the particulate in question. 3. An APF of 10 can only be achieved if the respirator is qualitatively or quantitatively fit tested on individual workers.	

**Skin protection:** Maintain good industrial hygiene. Protection recommended for workers suffering from dermatitis or sensitive skin.

**Eye protection:** Safety glasses with side shields or goggles recommended if eye contact is anticipated.

**Other:** None known.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance (physical state, color, etc.):** White or tan sand: granular, crushed or ground to a powder.

**Odor:** None.

<b>Odor threshold:</b> Not determined	<b>pH:</b> 6-8
<b>Melting point/freezing point:</b> 3110°F/1710°C	<b>Boiling point/range:</b> 4046°F/2230°C
<b>Flash point:</b> Not applicable	<b>Evaporation rate:</b> Not applicable
<b>Flammable limits: LEL:</b> Not applicable	<b>UEL:</b> Not applicable
<b>Vapor pressure:</b> Not applicable	<b>Vapor density:</b> Not applicable
<b>Relative density:</b> 2.65	<b>Solubility(ies):</b> Insoluble in water



<b>Partition coefficient: n-octanol/water:</b> Not applicable	<b>Auto-ignition temperature:</b> Not determined
<b>Decomposition temperature:</b> Not determined	<b>Viscosity:</b> Not applicable
<b>Flammability (solid, gas):</b> Not applicable	

## 10. STABILITY AND REACTIVITY

**Reactivity:** Not reactive under normal conditions of use.

**Chemical stability:** Stable

**Possibility of hazardous reactions:** Contact with powerful oxidizing agents, such as fluorine, chlorine trifluoride and oxygen difluoride, may cause fires.

**Conditions to avoid:** Avoid generation of dust in handling and use.

**Incompatible materials:** Powerful oxidizers such as fluorine, chlorine trifluoride, and oxygen difluoride and hydrofluoric acid.

**Hazardous decomposition products:** Silica will dissolve in hydrofluoric acid and produce a corrosive gas, silicon tetrafluoride.

## 11. TOXICOLOGICAL INFORMATION

**Acute effects of exposure:**

**Inhalation:** Inhalation of dust may cause respiratory tract irritation. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing, wheezing and shortness of breath.

**Ingestion:** Ingestion in an unlikely route of exposure. If dust is swallowed, it may irritate the mouth and throat.

**Skin contact:** No adverse effects are expected.

**Eye contact:** Particulates may cause abrasive injury.

**Chronic effects:** Prolonged inhalation of respirable crystalline silica may cause lung disease, silicosis, lung cancer and other effects as indicated below.

**The method of exposure that can lead to the adverse health effects described below is inhalation.**

### A. SILICOSIS

Silicosis can exist in several forms, chronic (or ordinary), accelerated, or acute:

Chronic or Ordinary Silicosis is the most common form of silicosis, and can occur after many years (10 to 20 or more) of prolonged repeated inhalation of relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis. Simple silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms, detectable changes in lung function or disability. Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter. Complicated silicosis or PMF symptoms, if present, are shortness of breath and cough. Complicated silicosis or PMF may be associated with decreased lung function and may be disabling. Advanced complicated silicosis or PMF may lead to death. Advanced complicated silicosis or PMF can result in heart disease secondary to the lung disease (cor pulmonale).

Accelerated Silicosis can occur with prolonged repeated inhalation of high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five (5) years of initial exposure. Progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except

that lung lesions appear earlier and progression is more rapid.

Acute Silicosis can occur after the repeated inhalation of very high concentrations of respirable crystalline silica over a short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough, weakness and weight loss. Acute silicosis is fatal.

#### **B. CANCER**

IARC - The International Agency for Research on Cancer ("IARC") concluded that "crystalline silica in the form of quartz or cristobalite dust is *carcinogenic to humans (Group 1)*". For further information on the IARC evaluation, see IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 100C, "A Review of Human Carcinogens: Arsenic, Metals, Fibres and Dusts " (2011).

NTP classifies "Silica, Crystalline (respirable size)" as Known to be a human carcinogen.

#### **C. AUTOIMMUNE DISEASES**

Several studies have reported excess cases of several autoimmune disorders -- scleroderma, systemic lupus erythematosus, rheumatoid arthritis -- among silica-exposed workers.

#### **D. TUBERCULOSIS**

Individuals with silicosis are at increased risk to develop pulmonary tuberculosis, if exposed to tuberculosis bacteria. Individuals with chronic silicosis have a three-fold higher risk of contracting tuberculosis than similar individuals without silicosis.

#### **E. KIDNEY DISEASE**

Several studies have reported excess cases of kidney diseases, including end stage renal disease, among silica-exposed workers. For additional information on the subject, the following may be consulted: "Kidney Disease and Silicosis", *Nephron*, Volume 85, pp. 14-19 (2000).

#### **F. NON-MALIGNANT RESPIRATORY DISEASES**

The reader is referred to Section 3.5 of the NIOSH Special Hazard Review cited below for information concerning the association between exposure to crystalline silica and chronic bronchitis, emphysema and small airways disease. There are studies that disclose an association between dusts found in various mining occupations and non-malignant respiratory diseases, particularly among smokers. It is unclear whether the observed associations exist only with underlying silicosis, only among smokers, or result from exposure to mineral dusts generally (independent of the presence or absence of crystalline silica, or the level of crystalline silica in the dust).

#### Sources of information:

The *NIOSH Hazard Review - Occupational Effects of Occupational Exposure to Respirable Crystalline Silica* published in April 2002 summarizes and discusses the medical and epidemiological literature on the health risks and diseases associated with occupational exposures to respirable crystalline silica. The *NIOSH Hazard Review* is available from NIOSH - Publications Dissemination, 4676 Columbia Parkway, Cincinnati, OH 45226, or through the NIOSH web site, [www.cdc.gov/niosh/topics/silica](http://www.cdc.gov/niosh/topics/silica), then click on the link "NIOSH Hazard Review: Health Effects of Occupational Exposure to Respirable Crystalline Silica".

For a more recent review of the health effects of respirable crystalline silica, the reader may consult *Fishman's Pulmonary Diseases and Disorders*, Fourth Edition, Chapter 57. "Coal Workers' Lung Diseases and Silicosis".

Finally, the US Occupational Safety and Health Administration (OSHA) published a summary of respirable crystalline silica health effects in connection with OSHA's Proposed Rule regarding occupational exposure to

respirable crystalline silica. The summary was published in the September 12, 2013 Federal Register, which can be found at [www.federalregister.gov/articles/2013/09/12/2013-20997/occupational-exposure-to-respirable-crystalline-silica](http://www.federalregister.gov/articles/2013/09/12/2013-20997/occupational-exposure-to-respirable-crystalline-silica).

**Numerical measures of toxicity:**

Crystalline Silica (quartz): LD50 oral rat >22,500 mg/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Crystalline silica (quartz) is not known to be ecotoxic.

**Persistence and degradability:** Silica is not degradable.

**Bioaccumulative potential:** Silica is not bioaccumulative.

**Mobility in soil:** Silica is not mobile in soil.

**Other adverse effects:** No data available

## 13. DISPOSAL CONSIDERATIONS

Discard any product, residue, disposable container or liner in full compliance with national regulations.

## 14. TRANSPORT INFORMATION

**UN number:** None

**UN proper shipping name:** Not regulated

**Transport hazard classes(es):** None

**Packing group, if applicable:** None

**Environmental hazards:** None

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not determined

**Special precautions:** None known.

## 15. REGULATORY INFORMATION

### UNITED STATES (FEDERAL AND STATE)

**TSCA Status:** Crystalline silica (quartz) appears on the EPA TSCA inventory under the CAS No. 14808-60-7.

**RCRA:** This product is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

**CERCLA:** Crystalline silica (quartz) is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR §302.

**Emergency Planning and Community Right to Know Act (SARA Title III):** This product contains the following chemicals subject to SARA 302 or SARA 313 reporting: None above the de minimus concentrations.

**Clean Air Act:** Crystalline silica (quartz) mined and processed is not processed with or does not contain any Class I or Class II ozone depleting substances.

FDA: Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3)(xxvi).

California Proposition 65: Crystalline silica (airborne particles of respirable size) is classified as a substance known to the State of California to be a carcinogen.

California Inhalation Reference Exposure Level (REL): California established a chronic non-cancer effect REL of 3 µg for silica (crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no non-cancer health effects are anticipated in individuals indefinitely exposed to the substance at that level.

Massachusetts Toxic Use Reduction Act: Silica, crystalline (respirable size, <10 microns) is “toxic” for purposes of the Massachusetts Toxic Use Reduction Act.

Pennsylvania Worker and Community Right to Know Act: Quartz is a hazardous substance under the Act, but it is not a special hazardous substance or an environmental hazardous substance.

Texas Commission on Environmental Quality: The Texas CEQ has established chronic and acute Reference Values and short term and long term Effects Screening Levels for crystalline silica (quartz). The information can be accessed through [www.tceq.texas.gov](http://www.tceq.texas.gov).

## **CANADA**

Domestic Substances List: U. S. Silica Company products, as naturally occurring substances, are on the Canadian DSL.

WHMIS Classification: D2A

## **OTHER NATIONAL INVENTORIES**

Australian Inventory of Chemical Substances (AICS): All of the components of this product are listed on the AICS inventory or exempt from notification requirements.

China: Silica is listed on the IECSC inventory or exempt from notification requirements.

Japan Ministry of International Trade and Industry (MITI): All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law Registry Number 1-548.

Korea Existing Chemicals Inventory (KECI) (set up under the Toxic Chemical Control Law): Listed on the ECL with registry number 9212-5667.

New Zealand: Silica is listed on the HSNO inventory or exempt from notification requirements.

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed for PICCS.

Taiwan: Silica is listed on the CSNN inventory or exempt from notification requirements.

## 16. OTHER INFORMATION

**Date of preparation/revision:** February 10, 2015

Hazardous Material Information System (HMIS):

Health \*

Flammability 0

Physical Hazard 0

Protective Equipment E

\* For further information on health effects, see Sections 2, 8 and 11 of this MSDS.

National Fire Protection Association (NFPA):

Health 0

Flammability 0

Instability 0

Web Sites with Information about Effects of Crystalline Silica Exposure:

The U.S. National Institute for Occupational Safety and Health (NIOSH) and Occupational Safety and Health Administration (OSHA) maintain sites with information about crystalline silica and its potential health effects. For NIOSH, <http://www.cdc.gov/niosh/topics/silica>; for OSHA, <http://www.osha.gov/dsg/topics/silicacrystalline/index>.

The IARC Monograph that includes crystalline silica, Volume 100C, can be accessed in PDF form at the IARC web site, <http://monographs.iarc.fr/ENG/Monographs/PDFs/index.php>.

### Company Disclaimer

**The information and recommendations contained herein are based upon data believed to be up to-date and correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects that may be caused by purchase, resale, use or exposure to our silica. Customers and users of silica must comply with all applicable health and safety laws, regulations, and orders. In particular, they are under an obligation to carry out a risk assessment for the particular work places and to take adequate risk management measures in accordance with the national implementation legislation of EU Directives 89/391 and 98/24.**



**3M Brand Fire Barrier CP-25WB+**

Not applicable.

**Pictograms**

Not applicable.

**Hazard statements**

Causes eye irritation.

**Precautionary statements****General:**

Keep out of reach of children. Read label before use. If medical advice is needed, have product container or label at hand.

**Prevention:**

Wash thoroughly after handling.

**Response:**

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

**2.3. Other hazards**

None known.

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

This material is a mixture.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>
Sodium Silicate	1344-09-8	10 - 30
Water	7732-18-5	10 - 30
Zinc Borate 2335	138265-88-0	10 - 30
Polymer	Trade Secret	10 - 30
Ethylhexyldiphenyl Phosphate	1241-94-7	3 - 7
Iron Oxide	1309-37-1	1 - 5
Oxide Glass Chemicals	65997-17-3	1 - 5
Polyethylene Glycol	25322-68-3	1 - 5
Di-2-ethylhexylphenyl phosphate	16368-97-1	< 1.0
Polyoxyethylene monoethylphenyl ether	9036-19-5	< 1
Triphenyl Phosphate	115-86-6	< 1.0
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	55965-84-9	< 0.001

Polymer is a non-hazardous Trade Secret material according to WHMIS criteria.

Sodium Silicate is a hazardous Trade Secret material according to WHMIS criteria. Refer to Section 15 for further information.

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**

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

**Eye Contact:**

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

**If Swallowed:**

Rinse mouth. If you feel unwell, get medical attention.

**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**

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

Avoid release to the environment.

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

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Avoid eye contact. Keep out of reach of children. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

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

Keep cool. Store away from heat. Store away from areas where product may come into contact with food or pharmaceuticals. Store in a dry place.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**



**3M Brand Fire Barrier CP-25WB+****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional Comments</b>
Triphenyl Phosphate	115-86-6	ACGIH	TWA:3 mg/m3	
Iron Oxide	1309-37-1	ACGIH	TWA(respirable fraction):5 mg/m3	
Polyethylene Glycol	25322-68-3	AIHA	TWA(as particulate):10 mg/m3	
Oxide Glass Chemicals	65997-17-3	Manufacturer determined	TWA(as dust):10 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

**8.2. Exposure controls****8.2.1. Engineering controls**

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

**8.2.2. Personal protective equipment (PPE)****Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect Vented Goggles

**Skin/hand protection**

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

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

Neoprene

Nitrile Rubber

**Respiratory protection**

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state

Solid

<b>Specific Physical Form:</b>	Paste
<b>Appearance/Odour</b>	Red with negligible odour
<b>Odour threshold</b>	<i>No Data Available</i>
<b>Melting point/Freezing point</b>	<i>No Data Available</i>
<b>Flash Point</b>	No flash point
<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>Relative density</b>	1.35 [ <i>Ref Std: WATER=1</i> ]
<b>Water solubility</b>	Complete
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Molecular weight</b>	<i>No Data Available</i>
<b>Volatile Organic Compounds</b>	<=0.5 % weight [ <i>Test Method:tested per EPA method 24</i> ]
<b>VOC Less H2O &amp; Exempt Solvents</b>	<=6 g/l [ <i>Test Method:tested per EPA method 24</i> ]

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Oxides of Phosphorus	Not Specified

## SECTION 11: Toxicological information

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

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

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

**3M Brand Fire Barrier CP-25WB+****Inhalation:**

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

**Skin Contact:**

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

**Eye Contact:**

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

**Ingestion:**

May be harmful if swallowed. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

**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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Polymer	Ingestion	Rat	LD50 > 2,000 mg/kg
Zinc Borate 2335	Dermal	Rabbit	LD50 > 10,000 mg/kg
Zinc Borate 2335	Ingestion	Rat	LD50 > 10,000 mg/kg
Sodium Silicate	Dermal	Rabbit	LD50 > 4,640 mg/kg
Sodium Silicate	Ingestion	Rat	LD50 500 mg/kg
Ethylhexyldiphenyl Phosphate	Dermal	Rabbit	LD50 > 7,940 mg/kg
Ethylhexyldiphenyl Phosphate	Ingestion	Rat	LD50 > 24,000 mg/kg
Iron Oxide	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide	Ingestion	Not available	LD50 3,700 mg/kg
Polyethylene Glycol	Dermal	Rabbit	LD50 > 20,000 mg/kg
Polyethylene Glycol	Ingestion	Rat	LD50 32,770 mg/kg
Oxide Glass Chemicals	Dermal		LD50 estimated to be > 5,000 mg/kg
Oxide Glass Chemicals	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Polyoxyethylene monoocetylphenyl ether	Dermal	Rabbit	LD50 > 3,000 mg/kg
Polyoxyethylene monoocetylphenyl ether	Ingestion	Rat	LD50 > 500 mg/kg
Triphenyl Phosphate	Dermal	Rabbit	LD50 > 7,900 mg/kg
Triphenyl Phosphate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 50 mg/l
Triphenyl Phosphate	Ingestion	Rat	LD50 > 3,000 mg/kg
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Dermal	Rabbit	LD50 87 mg/kg
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.33 mg/l
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Ingestion	Rat	LD50 40 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Polymer	Rabbit	Minimal irritation
Sodium Silicate	Rabbit	Corrosive

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Iron Oxide	Rabbit	No significant irritation
Polyethylene Glycol	Rabbit	Minimal irritation
Oxide Glass Chemicals	Professional judgement	No significant irritation
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Rabbit	Corrosive

**Serious Eye Damage/Irritation**

Name	Species	Value
Polymer	Professional judgement	Mild irritant
Sodium Silicate	Rabbit	Corrosive
Iron Oxide	Rabbit	No significant irritation
Polyethylene Glycol	Rabbit	Mild irritant
Oxide Glass Chemicals	Professional judgement	No significant irritation
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Rabbit	Corrosive

**Skin Sensitization**

Name	Species	Value
Sodium Silicate	Mouse	Not sensitizing
Iron Oxide	Human	Some positive data exist, but the data are not sufficient for classification
Polyethylene Glycol	Guinea pig	Not sensitizing
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Human and animal	Sensitizing

**Photosensitization**

Name	Species	Value
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Human and animal	Not sensitizing

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

Name	Route	Value
Sodium Silicate	In Vitro	Not mutagenic
Sodium Silicate	In vivo	Not mutagenic
Iron Oxide	In Vitro	Not mutagenic
Polyethylene Glycol	In Vitro	Not mutagenic
Polyethylene Glycol	In vivo	Not mutagenic
Oxide Glass Chemicals	In Vitro	Some positive data exist, but the data are not sufficient for classification
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	In vivo	Not mutagenic
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

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Name	Route	Species	Value
Iron Oxide	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Polyethylene Glycol	Ingestion	Rat	Not carcinogenic
Oxide Glass Chemicals	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Dermal	Mouse	Not carcinogenic
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Ingestion	Rat	Not carcinogenic

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
Sodium Silicate	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	NOAEL 200 mg/kg/day	during gestation
Polyethylene Glycol	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,125 mg/kg/day	during gestation
Polyethylene Glycol	Ingestion	Not toxic to male reproduction	Rat	NOAEL 5699 +/- 1341 mg/kg/day	5 days
Polyethylene Glycol	Not Specified	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		NOEL N/A	
Polyethylene Glycol	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	NOAEL 562 mg/animal/day	during gestation
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Ingestion	Not toxic to female reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Ingestion	Not toxic to male reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Ingestion	Not toxic to development	Rat	NOAEL 15 mg/kg/day	during organogenesis

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Sodium Silicate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Polyethylene Glycol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.008 mg/l	2 weeks
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Sodium Silicate	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks
Sodium Silicate	Ingestion	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 804 mg/kg/day	3 months

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Sodium Silicate	Ingestion	blood	All data are negative	Rat	NOAEL 804 mg/kg/day	3 months
Sodium Silicate	Ingestion	heart   liver	All data are negative	Rat	NOAEL 1,259 mg/kg/day	8 weeks
Iron Oxide	Inhalation	pulmonary fibrosis   pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Polyethylene Glycol	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.008 mg/l	2 weeks
Polyethylene Glycol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 5,640 mg/kg/day	13 weeks
Polyethylene Glycol	Ingestion	heart   endocrine system   hematopoietic system   liver   nervous system	All data are negative	Rat	NOAEL 5,640 mg/kg/day	13 weeks
Oxide Glass Chemicals	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL not available	occupational exposure

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

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

**SECTION 12: Ecological information**

No data available.

**SECTION 13: Disposal considerations**

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

**SECTION 14: Transport Information**

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

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Global inventory status**

Contact 3M for more information. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA.

**Trade Secret Information:****HMIRA Registry Number:** Filing date:**Claim status:****Date of decision:**

TBD

Claim for exemption has been filed.

## SECTION 16: Other information

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

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

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

### HMIS Hazard Classification

**Health: 2 Flammability: 1 Physical Hazard: 0 Personal Protection: X** - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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**3M Canada SDSs are available at [www.3M.ca](http://www.3M.ca)**



## 1. Identification

Product name : Sikasil® WS-295

Supplier : Sika Corporation  
201 Polito Avenue  
Lyndhurst, NJ 07071  
USA  
www.sikausa.com

Telephone : (201) 933-8800

Telefax : (201) 804-1076

E-mail address : ehs@sika-corp.com

Emergency telephone : CHEMTREC: 800-424-9300  
INTERNATIONAL: 703-527-3887


Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

## 2. Hazards identification

### GHS Classification

Flammable liquids, Category 4	H227: Combustible liquid.
Eye irritation, Category 2A	H319: Causes serious eye irritation.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Reproductive toxicity, Category 2	H361f: Suspected of damaging fertility.
Specific target organ systemic toxicity - repeated exposure, Category 2 (Oral)	H373: May cause damage to organs through prolonged or repeated exposure if swallowed.

### GHS label elements

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : H227 Combustible liquid.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H361f Suspected of damaging fertility.  
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

Precautionary Statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read





and understood.  
 P210 Keep away from heat/sparks/open flames/hot surfaces.  
 No smoking.  
 P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
 P264 Wash skin thoroughly after handling.  
 P272 Contaminated work clothing must not be allowed out of the workplace.  
 P280 Wear protective gloves/ eye protection/ face protection.  
 P281 Use personal protective equipment as required.

**Response:**

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.  
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.  
 P363 Wash contaminated clothing before reuse.  
 P370 + P378 In case of fire: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment for extinction.

**Storage:**

P403 + P235 Store in a well-ventilated place. Keep cool.  
 P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

See Section 11 for more detailed information on health effects and symptoms.

There are no hazards not otherwise classified that have been identified during the classification process.

There are no ingredients with unknown acute toxicity used in a mixture at a concentration  $\geq 1\%$ .

### 3. Composition/information on ingredients

#### Hazardous ingredients

Chemical name	CAS-No.	Concentration (%)
2-butanone-O,O',O''-(phenylsilylidyne)trioxime	34036-80-1	$\geq 2 - < 5\%$
butan-2-one-O,O',O''-(methylsilylidyne)trioxime	22984-54-9	$\geq 1 - < 2\%$
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine	35141-30-1	$\geq 1 - < 2\%$
octamethylcyclotetrasiloxane	556-67-2	$< 1\%$

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



#### 4. First aid measures

If inhaled	: Move to fresh air. Consult a physician after significant exposure.
In case of skin contact	: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.
In case of eye contact	: Immediately flush eye(s) with plenty of water. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Obtain medical attention.
Most important symptoms and effects, both acute and delayed	: irritant effects sensitizing effects  Allergic reactions Excessive lachrymation See Section 11 for more detailed information on health effects and symptoms.  May cause an allergic skin reaction. Causes serious eye irritation. Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure if swallowed.
Protection of first-aiders	: Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.
Notes to physician	: Treat symptomatically.

#### 5. Fire-fighting measures

Suitable extinguishing media	: Carbon dioxide (CO <sub>2</sub> )
Unsuitable extinguishing media	: Water
Specific extinguishing methods	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	: In the event of fire, wear self-contained breathing apparatus.



## 6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Deny access to unprotected persons.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.  
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 (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

## 7. Handling and storage

- Advice on safe handling : Do not breathe vapors or spray mist.  
Avoid exceeding the given occupational exposure limits (see section 8).  
Do not get in eyes, on skin, or on clothing.  
For personal protection see section 8.  
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Smoking, eating and drinking should be prohibited in the application area.  
Follow standard hygiene measures when handling chemical products.
- Conditions for safe storage : Store in original container.  
Keep in a well-ventilated place.  
Observe label precautions.  
Store in accordance with local regulations.
- Materials to avoid : No data available

## 8. Exposure controls/personal protection

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
calcium carbonate	471-34-1	CAL PEL	PEL	10 mg/m <sup>3</sup> Total dust
		CAL PEL	PEL	5 mg/m <sup>3</sup> respirable dust fraction



\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

**\*\*Basis**

- ACGIH. Threshold Limit Values (TLV)
- OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values)
- OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant
- OSHA P2. Permissible Exposure Limits (PEL), Table Z-2
- OSHA Z3. Table Z-3, Mineral Dust

**Engineering measures** : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.  
The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

**Personal protective equipment**

**Respiratory protection** : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

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

**Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

**Skin and body protection** : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**Hygiene measures** : Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.  
Remove respiratory and skin/eye protection only after vapors have been cleared from the area.  
Remove contaminated clothing and protective equipment before entering eating areas.  
Wash thoroughly after handling.

**9. Physical and chemical properties**

Appearance	: paste
Color	: various
Odor	: mild musty
Odor Threshold	: No data available
Flash point	: 185 °F (85 °C)
Ignition temperature	: No data available
Decomposition temperature	: No data available
Lower explosion limit (Vol%)	: No data available
Upper explosion limit (Vol%)	: No data available
Flammability (solid, gas)	: No data available
Oxidizing properties	: No data available
pH	: Note: Not applicable
Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: No data available
Vapor pressure	: 0.01 mmHg (0.01 hpa)
Density	: ca.1.12 g/cm <sup>3</sup> at 73 °F (23 °C)
Water solubility	: Note: insoluble
Partition coefficient: n- octanol/water	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm <sup>2</sup> /s at 104 °F (40 °C)
Relative vapor density	: No data available
Evaporation rate	: No data available
Burning rate	: No data available
Volatile organic compounds (VOC) content	: 37 g/l

**10. Stability and reactivity**

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Stable under recommended storage conditions.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: No data available

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**11. Toxicological information****Acute toxicity**

Not classified based on available information.

**Ingredients:****N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine:**

Acute oral toxicity : LD50 Oral (Rat): 7,758 mg/kg

Acute dermal toxicity : LD50 Dermal (Rat): 16,640 mg/kg

**octamethylcyclotetrasiloxane:**

Acute inhalation toxicity : LC50 (Rat): 36 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Respiratory or skin sensitization**

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Reproductive toxicity**

Suspected of damaging fertility.

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure if swallowed.

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Aspiration toxicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

<b>IARC</b>	Group 2B: Possibly carcinogenic to humans	
	titanium dioxide	13463-67-7
	Carbon black	1333-86-4
<b>NTP</b>	Not applicable	

Carbon black (1333-86-4)

Animal Toxicity:

Rat, oral, duration 2 year  
Effect: no tumors

Mouse, oral, duration 2 years  
Effect: no tumors

Mouse, dermal, duration 18 months  
Effect: no skin tumors

Rat, inhalation, duration 2 years  
Target organ: lungs  
Effect: inflammation, fibrosis, tumors

Note: Tumors in the rat lung are considered to be related to the "particle overload phenomenon" rather than to a specific chemical effect of carbon black itself in the lung. These effects in rats have been reported in many studies on other poorly soluble inorganic particles and appear to be rat specific. Tumors have not been observed in other species (i.e., mouse and hamster) for carbon black or other poorly soluble particles under similar circumstances and study conditions.

Mortality studies (human data): A study on carbon black production workers in the UK (Sorahan, 2001) found an increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant (Morfeld, 2006; Buechte, 2006) found a similar increase in lung cancer risk but, like the Sorahan, 2001 (UK study) found no association with carbon black exposure. A large US study of 18 plants showed a reduction in lung cancer risk in carbon black production workers (DEll, 2006). Based upon these studies, the February 2006 Working Group at the International Agency for Research on Cancer (IARC) concluded that the human evidence for carcinogenicity was inadequate (IARC, 2010).

Since the IARC evaluation of carbon black, Sorahan and Harrington (2007) have re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney (2009) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington.

Overall, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated.

**IARC CANCER CLASSIFICATION:** In 2006 IARC re-affirmed its 1995 finding that there is "inadequate evidence" from human health studies to assess whether carbon black causes cancer in humans. IARC concluded that there is "sufficient evidence" in experimental animal studies for the carcinogenicity of carbon black. IARC's overall evaluation is that carbon black is "possibly carcinogenic to humans" (Group 2B)". This conclusion was based on IARC's



guidelines, which generally require such a classification if one species exhibits carcinogenicity in two or more animal studies (IARC, 2010).

Solvent extracts of carbon black were used in one study of rats in which skin tumors were found after dermal application and several studies of mice in which sarcomas were found following subcutaneous injection. IARC concluded that there was "sufficient evidence" that carbon black extracts can cause cancer in animals (Group 2B).

**ICGIH CANCER CLASSIFICATION:** Confirmed Animal Carcinogen with Unknown Relevance to Humans (Category A3 Carcinogen).

**ASSESSMENT:** Applying the guidelines of self-classification under the Globally Harmonized System of Classification and Labeling of Chemicals, carbon black is not classified as a carcinogen. Lung tumors are induced in rats as a result of repeated exposure to inert, poorly soluble particles like carbon black and other poorly soluble particles. Rats tumors are a result of a secondary non-genotoxic mechanism that has questionable relevance for classification in humans. In support of this opinion, the CLP Guidance for Specific Target Organ Toxicity - Repeated Exposure (STOT-RE), cites lung overload under mechanisms not relevant to humans. Human health studies show that exposure to carbon black does not increase the risk to carcinogenicity.

Titanium dioxide (13463-67-7)

In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have been shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that cause lung cancer. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

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## 12. Ecological information

Other information	Do not empty into drains; dispose of this material and its container in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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## 13. Disposal considerations

### Disposal methods

Waste from residues	: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional
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local authority requirements.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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#### 14. Transport information

**DOT**

Not dangerous goods

**IATA**

Not dangerous goods

**IMDG**

Not dangerous goods

**Special precautions for user**

No data available

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

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#### 15. Regulatory information

**TSCA list** : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

**EPCRA - Emergency Planning and Community Right-to-Know**

**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA304 Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard

**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**



**Ozone-Depletion Potential**

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).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (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 in the State of California to cause cancer.

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

**16. Other information**

**HMIS Classification**

<b>Health</b>	*	2
<b>Flammability</b>		2
<b>Physical Hazard</b>		0
<b>Personal Protection</b>		X

**Caution:** HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

**Notes to Reader**

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

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All sales of Sika products are subject to its current terms and conditions of sale available at [www.sikausa.com](http://www.sikausa.com) or 201-933-8800.

Revision Date 01/26/2017

Safety Data Sheet

**Sikasil® WS-295**



Revision Date 01/26/2017

Print Date 01/26/2017

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Material number: 481215



## 1. Identification

Product name	:	Sika AnchorFix®-2 Part A
Supplier	:	Sika Corporation
Address	:	201 Polito Avenue Lyndhurst, NJ 07071 USA www.sikausa.com
Telephone	:	(201) 933-8800
Telefax	:	(201) 804-1076
Emergency telephone	:	CHEMTREC: 800-424-9300 INTERNATIONAL: 703-527-3887 ehs@sika-corp.com
Recommended use of the chemical and restrictions on use	:	For further information, refer to the product technical data sheet.

## 2. Hazards identification

### GHS Classification

Skin sensitization , Category 1	H317: May cause an allergic skin reaction.
Carcinogenicity , Category 2	H351: Suspected of causing cancer.
Specific target organ systemic toxicity - repeated exposure , Category 1, Lungs (Inhalation)	H372: Causes damage to organs through prolonged or repeated exposure if inhaled.

### GHS Label element

Hazard pictograms	:	
Signal Word	:	Danger
Hazard Statements	:	H317 May cause an allergic skin reaction. H351 Suspected of causing cancer. H372 Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.
Precautionary Statements	:	<b>Prevention:</b> P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing must not be allowed out of



the workplace.

P280 Wear protective gloves.

P281 Use personal protective equipment as required.

**Response:**

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

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

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

P363 Wash contaminated clothing before reuse.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

See Section 11 for more detailed information on health effects and symptoms.

There are no hazards not otherwise classified that have been identified during the classification process.

There are no ingredients with unknown acute toxicity used in a mixture at a concentration  $\geq 1\%$ .

### 3. Composition/information on ingredients

#### Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Quartz (SiO <sub>2</sub> )	14808-60-7	$\geq 50 - \leq 100$ %
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	$\geq 20 - < 25$ %
Quartz (SiO <sub>2</sub> ) <5 $\mu$ m	14808-60-7	$\geq 20 - < 25$ %
titanium dioxide	13463-67-7	< 1 %

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

### 4. First aid measures

- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
If symptoms persist, call a physician.
- In case of eye contact : Remove contact lenses.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Induce vomiting immediately and call a physician.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.



- Most important symptoms and effects, both acute and delayed : sensitizing effects
- Allergic reactions  
See Section 11 for more detailed information on health effects and symptoms.
- May cause an allergic skin reaction.  
Suspected of causing cancer.  
Causes damage to organs through prolonged or repeated exposure if inhaled.
- Protection of first-aiders : Move out of dangerous area.  
Consult a physician.  
Show this material safety data sheet to the doctor in attendance.
- Notes to physician : Treat symptomatically.

**5. Fire-fighting measures**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

**6. Accidental release measures**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Deny access to unprotected persons.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
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 (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

**7. Handling and storage**

- Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).



Do not get in eyes, on skin, or on clothing.  
 For personal protection see section 8.  
 Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
 Smoking, eating and drinking should be prohibited in the application area.  
 Follow standard hygiene measures when handling chemical products.

Conditions for safe storage : Store in original container.  
 Keep container tightly closed in a dry and well-ventilated place.  
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
 Observe label precautions.  
 Store in accordance with local regulations.

Materials to avoid : No data available

**8. Exposure controls/personal protection**

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Quartz (SiO <sub>2</sub> )	14808-60-7	ACGIH	TWA	0.025 mg/m <sup>3</sup> Respirable fraction
		OSHA Z-3	TWA	30 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2 total dust
		OSHA Z-3	TWA	10 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO <sub>2</sub> +5 respirable
		OSHA P0	TWA	0.1 mg/m <sup>3</sup> Respirable fraction
		OSHA P0	TWA	0.1 mg/m <sup>3</sup> respirable dust fraction
		ACGIH	TWA	0.025 mg/m <sup>3</sup> Respirable fraction
		ACGIH	TWA	0.025 mg/m <sup>3</sup> Respirable fraction



Quartz (SiO <sub>2</sub> ) <5µm		ACGIH	TWA	0.025 mg/m <sup>3</sup> Respirable fraction
		OSHA Z-3	TWA	30 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2 total dust
		OSHA Z-3	TWA	10 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO <sub>2</sub> +5 respirable
		OSHA P0	TWA	0.1 mg/m <sup>3</sup> Respirable fraction
		OSHA P0	TWA	0.1 mg/m <sup>3</sup> respirable dust fraction
		ACGIH	TWA	0.025 mg/m <sup>3</sup> Respirable fraction
		ACGIH	TWA	0.025 mg/m <sup>3</sup> Respirable fraction
titanium dioxide	13463-67-7	OSHA P0	TWA	10 mg/m <sup>3</sup> Total
		OSHA Z-1	TWA	15 mg/m <sup>3</sup> total dust
		OSHA P0	TWA	10 mg/m <sup>3</sup> Total dust
		ACGIH	TWA	10 mg/m <sup>3</sup>

\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

**\*\*Basis**

ACGIH. Threshold Limit Values (TLV)

OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values)

OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant

OSHA P2. Permissible Exposure Limits (PEL), Table Z-2

OSHA Z3. Table Z-3, Mineral Dust

**Engineering measures** : Use of adequate ventilation should be sufficient to control





worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

#### Personal protective equipment

- Respiratory protection : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
- The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
- Hand protection  
Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Hygiene measures : Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.  
Remove contaminated clothing and protective equipment before entering eating areas.  
Wash thoroughly after handling.

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#### 9. Physical and chemical properties

- Appearance : viscous liquid
- Color : gray
- Odor : characteristic
- Odor Threshold : No data available
- Flash point : > 302 °F (> 150 °C)
- Ignition temperature : Not applicable
- Decomposition temperature : No data available
- Lower explosion limit (Vol%) : No data available



Upper explosion limit (Vol%)	:	No data available
Flammability (solid, gas)	:	No data available
Oxidizing properties	:	No data available
Autoignition temperature	:	No data available
pH	:	No data available
Melting point/range / Freezing point	:	No data available
Boiling point/boiling range	:	No data available
Vapor pressure	:	No data available
Density	:	ca.1.65 g/cm <sup>3</sup>
Water solubility	:	Note: insoluble
Partition coefficient: n- octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20.5 mm <sup>2</sup> /s at 104 °F (40 °C)
Relative vapor density	:	No data available
Evaporation rate	:	No data available
Burning rate	:	No data available
Volatile organic compounds (VOC) content	:	43 g/l A +B Combined

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**10. Stability and reactivity**

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	No data available
Incompatible materials	:	No data available

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**11. Toxicological information**

Not classified based on available information.

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Respiratory or skin sensitization**

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Suspected of causing cancer.

**IARC**

Group 2B: Possibly carcinogenic to humans

titanium dioxide 13463-67-7

Group 1: Carcinogenic to humans

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

Quartz (SiO<sub>2</sub>) <5µm 14808-60-7

**NTP**

Known to be human carcinogen

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

Quartz (SiO<sub>2</sub>) <5µm 14808-60-7

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Aspiration toxicity**

Not classified based on available information.

**12. Ecological information**

Other information

Do not empty into drains; dispose of this material and its container in a safe way.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**13. Disposal considerations****Disposal methods**

Waste from residues

: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional



local authority requirements.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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#### 14. Transport information

**DOT**

Not dangerous goods

**IATA**

Not dangerous goods

**IMDG**

Not dangerous goods

**Special precautions for user**

No data available

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

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#### 15. Regulatory information

**TSCA list** : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

**EPCRA - Emergency Planning and Community Right-to-Know**

**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA304 Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Chronic Health Hazard  
Acute Health Hazard

**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**

**Sika AnchorFix®-2 Part A**



Revision Date 04/29/2015

Print Date 04/29/2015

**Ozone-Depletion Potential**

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).

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 in the State of California to cause cancer.

**16. Other information**

**HMIS Classification**

<b>Health</b>	*	3
<b>Flammability</b>		1
<b>Physical Hazard</b>		0
<b>Personal Protection</b>		X

**Caution:** HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

**Notes to Reader**

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

SIKA MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO LIABILITY ARISING FROM THIS INFORMATION OR ITS USE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

All sales of Sika products are subject to its current terms and conditions of sale available at [www.sikausa.com](http://www.sikausa.com) or 201-933-8800.

Revision Date 04/29/2015

Material number: 417890



## 1. Identification

Product name	:	Sika AnchorFix®-2 Part B
Supplier	:	Sika Corporation
Address	:	201 Polito Avenue Lyndhurst, NJ 07071 USA www.sikausa.com
Telephone	:	(201) 933-8800
Telefax	:	(201) 804-1076
Emergency telephone	:	CHEMTREC: 800-424-9300 INTERNATIONAL: 703-527-3887 ehs@sika-corp.com
Recommended use of the chemical and restrictions on use	:	For further information, refer to the product technical data sheet.

## 2. Hazards identification

### GHS Classification

Eye irritation, Category 2A  
Skin sensitization, Category 1  
Carcinogenicity, Category 1A

H319: Causes serious eye irritation.  
H317: May cause an allergic skin reaction.  
H350: May cause cancer.

### GHS Label element

Hazard pictograms



Signal Word

: Danger

Hazard Statements

: H317 May cause an allergic skin reaction.  
H319 Causes serious eye 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.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear eye protection/ face protection.  
P280 Wear protective gloves.  
P281 Use personal protective equipment as required.

**Response:**

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.

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

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

P337 + P313 If eye irritation persists: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

See Section 11 for more detailed information on health effects and symptoms.

There are no hazards not otherwise classified that have been identified during the classification process.

There are no ingredients with unknown acute toxicity used in a mixture at a concentration  $\geq 1\%$ .

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### 3. Composition/information on ingredients

**Hazardous ingredients**

Chemical Name	CAS-No.	Concentration (%)
Quartz (SiO <sub>2</sub> )	14808-60-7	$\geq 25$ - $< 50$ %
dibenzoyl peroxide	94-36-0	$\geq 10$ - $< 20$ %
Quartz (SiO <sub>2</sub> ) $< 5\mu\text{m}$	14808-60-7	$< 1$ %

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

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### 4. First aid measures

If inhaled	: Move to fresh air. Consult a physician after significant exposure.
In case of skin contact	: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.
In case of eye contact	: Immediately flush eye(s) with plenty of water. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Induce vomiting immediately and call a physician.



	<p>Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.</p>
<p>Most important symptoms and effects, both acute and delayed</p>	<p>: Allergic reactions Excessive lachrymation See Section 11 for more detailed information on health effects and symptoms.</p> <p>irritant effects sensitizing effects carcinogenic effects</p> <p>May cause an allergic skin reaction. Causes serious eye irritation. May cause cancer.</p>
<p>Protection of first-aiders</p>	<p>: Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.</p>
<p>Notes to physician</p>	<p>: Treat symptomatically.</p>

**5. Fire-fighting measures**

<p>Suitable extinguishing media</p>	<p>: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.</p>
<p>Specific extinguishing methods</p>	<p>: Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.</p>
<p>Special protective equipment for fire-fighters</p>	<p>: In the event of fire, wear self-contained breathing apparatus.</p>

**6. Accidental release measures**

<p>Personal precautions, protective equipment and emergency procedures</p>	<p>: Use personal protective equipment. Deny access to unprotected persons.</p>
<p>Environmental precautions</p>	<p>: Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Local authorities should be advised if significant spillages cannot be contained.</p>
<p>Methods and materials for containment and cleaning up</p>	<p>: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.</p>





**7. Handling and storage**

- Advice on safe handling : Do not breathe vapors or spray mist.  
 Avoid exceeding the given occupational exposure limits (see section 8).  
 Do not get in eyes, on skin, or on clothing.  
 For personal protection see section 8.  
 Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
 Smoking, eating and drinking should be prohibited in the application area.  
 Follow standard hygiene measures when handling chemical products.
- Conditions for safe storage : Prevent unauthorized access.  
 Store in original container.  
 Keep container tightly closed in a dry and well-ventilated place.  
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
 Observe label precautions.  
 Store in accordance with local regulations.
- Materials to avoid : No data available

**8. Exposure controls/personal protection**

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Glycerol	56-81-5	OSHA P0	TWA	10 mg/m3 Total
		ACGIH	TWA	10 mg/m3
Quartz (SiO <sub>2</sub> )	14808-60-7	ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-3	TWA	30 mg/m3 / %SiO <sub>2</sub> +2 total dust
		OSHA Z-3	TWA	10 mg/m3 / %SiO <sub>2</sub> +2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO <sub>2</sub> +5 respirable
		OSHA P0	TWA	0.1 mg/m3



				Respirable fraction
		OSHA P0	TWA	0.1 mg/m3 respirable dust fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
dibenzoyl peroxide	94-36-0	ACGIH	TWA	5 mg/m3
		OSHA Z-1	TWA	5 mg/m3
		OSHA P0	TWA	5 mg/m3
Quartz (SiO2) <5µm	14808-60-7	ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-3	TWA	30 mg/m3 / %SiO2+2 total dust
		OSHA Z-3	TWA	10 mg/m3 / %SiO2+2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO2+5 respirable
		OSHA P0	TWA	0.1 mg/m3 Respirable fraction
		OSHA P0	TWA	0.1 mg/m3 respirable dust fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction



\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

**\*\*Basis**

ACGIH. Threshold Limit Values (TLV)

OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values)

OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant

OSHA P2. Permissible Exposure Limits (PEL), Table Z-2

OSHA Z3. Table Z-3, Mineral Dust

**Engineering measures** : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Personal protective equipment**

**Respiratory protection** : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

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

**Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

**Skin and body protection** : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**Hygiene measures** : Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.  
Remove contaminated clothing and protective equipment before entering eating areas.  
Wash thoroughly after handling.

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**9. Physical and chemical properties**



Appearance	: liquid
Color	: various
Odor	: slight
Odor Threshold	: No data available
Flash point	: Note: Not applicable
Ignition temperature	: Not applicable
Decomposition temperature	: No data available
Lower explosion limit (Vol%)	: No data available
Upper explosion limit (Vol%)	: No data available
Flammability (solid, gas)	: No data available
Oxidizing properties	: No data available
Autoignition temperature	: No data available
pH	: No data available
Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: No data available
Vapor pressure	: No data available
Density	: ca.1.55 g/cm <sup>3</sup> at 68 °F (20 °C)
Water solubility	: No data available
Partition coefficient: n- octanol/water	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm <sup>2</sup> /s at 104 °F (40 °C)
Relative vapor density	: No data available
Evaporation rate	: No data available
Burning rate	: No data available
Volatile organic compounds (VOC) content	: 43 g/l A+B Combined



## 10. Stability and reactivity

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Stable under recommended storage conditions.
Conditions to avoid	: No data available
Incompatible materials	: No data available

## 11. Toxicological information

### Acute toxicity

Not classified based on available information.

### Ingredients:

#### **dibenzoyl peroxide:**

Acute oral toxicity	: LD50 Oral (Rat): > 5,000 mg/kg
Acute inhalation toxicity	: LC50 (Rat): > 24.3 mg/l Exposure time: 4 h

### Skin corrosion/irritation

Not classified based on available information.

### Serious eye damage/eye irritation

Causes serious eye irritation.

### Respiratory or skin sensitization

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

### Germ cell mutagenicity

Not classified based on available information.

### Carcinogenicity

May cause cancer.

**IARC** Group 1: Carcinogenic to humans

Quartz (SiO <sub>2</sub> )	14808-60-7
Quartz (SiO <sub>2</sub> ) <5µm	14808-60-7
Known to be human carcinogen	

### **NTP**

Quartz (SiO <sub>2</sub> )	14808-60-7
Quartz (SiO <sub>2</sub> ) <5µm	14808-60-7

### Reproductive toxicity

Not classified based on available information.

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Aspiration toxicity**

Not classified based on available information.

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**12. Ecological information**

Other information	<p>Do not empty into drains; dispose of this material and its container in a safe way.</p> <p>Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.</p> <p>Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p>May be harmful to the environment if released in large quantities.</p> <p>Water polluting material.</p>
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**13. Disposal considerations**
**Disposal methods**

Waste from residues	: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Contaminated packaging	: Empty containers should be taken to an approved waste handling site for recycling or disposal.

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

Not regulated

**IATA**

UN number	3082
Description of the goods	Environmentally hazardous substance, liquid, n.o.s. (dibenzoyl peroxide, nonylbenzoate, branched and linear)
Class	9
Packing group	III
Labels	9
Packing instruction (cargo aircraft)	964
Packing instruction	964



(passenger aircraft)  
Packing instruction Y964  
(passenger aircraft)

**IMDG**

UN number 3082  
Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(dibenzoyl peroxide, nonylbenzoate, branched and linear)  
Class 9  
Packing group III  
Labels 9  
EmS Number 1 F-A  
EmS Number 2 S-F  
Marine pollutant yes

IMDG: For Limited Quantity special provisions reference IMDG Code Chapter 3.4

**Special precautions for user**

No data available

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

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**15. Regulatory information**

**TSCA list** : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA304 Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute Health Hazard  
Chronic Health Hazard

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

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

dibenzoyl peroxide	94-36-0	15.00 %
zinc distearate	557-05-1	3.00 %



**Clean Air Act**

**Ozone-Depletion Potential**

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).

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 in the State of California to cause cancer.

**16. Other information**

**HMIS Classification**

<b>Health</b>	*	3
<b>Flammability</b>		0
<b>Physical Hazard</b>		0
<b>Personal Protection</b>		X

**Caution:** HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

**Notes to Reader**

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Safety Data Sheet

**Sika AnchorFix®-2 Part B**



Revision Date 04/29/2015

Print Date 04/29/2015

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Material number: 426081