



Sika Emseal Safety Data Sheet Product Package

DSM-FP

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Safety Data Sheet

DSM Foam

EMSEAL Joint Systems, Ltd.

25 Bridle Lane, Westborough, MA 01581 USA www.emseal.com

Preparation Date March 15, 2015 **Revision Date** June 15, 2018

1. Identification of the Substance / Preparation

Product identifier DSM

Other identifier or names DSM System, DSM Foam

UN ID number None

Manufacturer Address EMSEAL LLC

111 Royal Group Crescent

Woodbridge, ON L4H 1X9 Canada

Company Phone (508) 836-0280 M-F 9am - 5pm

Emergency Phone CHEMTREC (800) 424-9300 (24 Hours)

2. Hazardous Indentification

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

EMSEAL DSM is composed of polyurethane foam impregnated with a proprietary solid acrylic polymer bonded to a fully cured silicone sealant. 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) Synthetic Calcium Carbonate	1317-65-3 371-34-1	10.0–40.0	SELF CLASSIFICATION 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			



EMSEAL

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4. First Aid Measures

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

5.2 FLAMMABILITY: Slight. Material can support an open flame or smoldering ignition. The foam can

melt while burning which can contribute fire to spread.

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

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

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

8. Exposure Controls / Personal Protection

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

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/cm3 **9.7 DECOMPOSITION:** > 300°C **9.8 SOLUBILITY IN WATER:** None





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10. Stability and Reactivity

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

11. Toxicological Information

Unknown.

12. Ecological Information

Unknown

13. Disposal Considerations

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

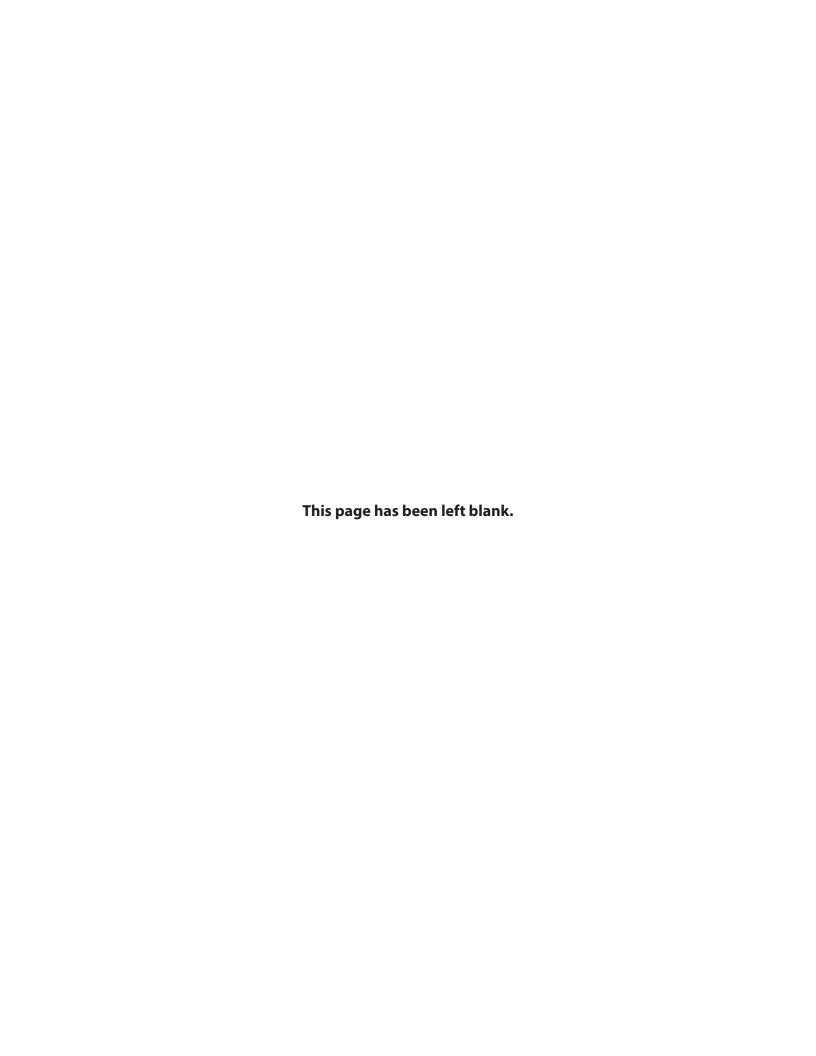
Not hazardous - safe for non-hazardous shipping.

15. Regulatory Information

Unknown.

16. Other Information

No other information provided.



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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

Eye irritation, Category 2A

Skin sensitization, Category 1

Carcinogenicity, Category 1A (Inhalation)

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H317: May cause an allergic skin reaction.

H350i: May cause cancer by inhalation.

Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system

system Specific target (

Specific target organ systemic toxicity - repeated exposure, Category 1, Lungs

H372: Causes damage to organs through

H335: May cause respiratory irritation.

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/

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 >= 1%.

3. Composition/information on ingredients

Hazardous ingredients

Chemical name	CAS-No.	Concentration (%)
Quartz (SiO2)	14808-60-7	>= 25 - < 50 %
bisphenol-A-(epichlorhydrin) epoxy resin	25068-38-6	>= 10 - < 20 %
oxirane, mono[(C12-14-	68609-97-2	>= 5 - < 10 %
alkyloxy)methyl]derivatives		

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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.

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 carcinogenic effects

Cough

Respiratory disorder Allergic reactions Excessive lachrymation

Erythema Dermatitis

See Section 11 for more detailed information on health effects

and symptoms.

Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May cause cancer by inhalation.

Causes damage to organs through prolonged or repeated

exposure.

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.

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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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Environmental precautions : Use personal protective equipment.

Deny access to unprotected persons.

: 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 : 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 (SiO2)	14808-60-7	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
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m3 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.

9. Physical and chemical properties

Appearance : paste

Color : white

Odor : aromatic

Odor Threshold : No data available

Flash point : $> 212 \,^{\circ}\text{F} \, (> 100 \,^{\circ}\text{C})$

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/cm3

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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 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

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 (SiO2) 14808-60-7 Group 2B: Possibly carcinogenic to humans

titanium dioxide 13463-67-7

NTP Known to be human carcinogen

Quartz (SiO2) 14808-60-7

Titanium dioxide (13463-67-7)

In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have seen 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 aninals 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 no 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

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

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

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

16. Other information

HMIS Classification



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

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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)
Specific target organ systemic toxicity single exposure, Category 3, Respiratory

H350i: May cause cancer by inhalation.
H335: May cause respiratory irritation.

system

Specific target organ systemic toxicity - H372: Causes damage to organs through

repeated exposure, Category 1, Lungs 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 >= 1%.

3. Composition/information on ingredients

Hazardous ingredients

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Chemical name	CAS-No.	Concentration (%)
Quartz (SiO2)	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 Environmental precautions

: Use personal protective equipment. Deny access to unprotected persons.

: 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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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 (SiO2)	14808-60-7	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
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m3 Respirable dust
m- phenylenebis(methylamin e)	1477-55-0	ACGIH	С	0.1 mg/m3
,		OSHA P0	С	0.1 mg/m3

^{*}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

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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 : $> 212 \,^{\circ}\text{F} \, (> 100 \,^{\circ}\text{C})$

Ignition temperature : No data available

Decomposition temperature : No data available

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Northern Manufacturing Construction Grade Epoxy Part B

Print Date 12/05/2019

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

рΗ : 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

No data available Viscosity, dynamic

> 20.5 mm2/sViscosity, kinematic

Relative vapor density No data available

Evaporation rate No data available

Burning rate No data available

Volatile organic compounds : 5 g/l

(VOC) content

A+B Combined

10. Stability and reactivity

: No dangerous reaction known under conditions of normal use. Reactivity

Chemical stability : The product is chemically stable.

Possibility of hazardous

reactions

: Stable under recommended storage conditions.

Conditions to avoid : No data available

: No data available Incompatible materials

11. Toxicological information

Acute toxicity

Not classified based on available information.

Components:

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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

Print Date 12/05/2019

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

> 14808-60-7 Quartz (SiO2)

NTP Known to be human carcinogen

> Quartz (SiO2) 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:

1477-55-0 Toxicity to fish: LC50

phenylenebis(methylamine

Species: Oryzias latipes (Japanese medaka)

Dose: > 10 - 100 mg/l Exposure time: 96 h

Toxicity 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 h

Toxicity 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 h

Toxicity to daphnia and other aquatic invertebrates:

EC50

Species: Daphnia Dose: 10 - 100 mg/l Exposure time: 48 h

Toxicity to algae:

EC50

Species: Pseudokirchneriella subcapitata (green algae)

Dose: 10 - 100 mg/l Exposure time: 72 h

13. Disposal considerations

Revision Date 12/05/2019

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

Print Date 12/05/2019

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 154

Guidebook Number

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 856

aircraft)

Packing instruction 852

(passenger aircraft)

Packing instruction Y841

(passenger aircraft)

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))

Revision Date 12/05/2019 Print Date 12/05/2019

Class 8 Packing group Ш Labels 8 EmS Number 1 F-A EmS Number 2 S-B Marine pollutant

DOT: For Limited Quantity exceptions reference 49 CFR 173.154 (b)

no

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

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

Print Date 12/05/2019 Revision Date 12/05/2019

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

16. Other information

HMIS Classification



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.

Revision Date 12/05/2019

Material number: 579211



Setting Bed A SAFETY DATA SHEET

Revision Number 2b Issuing Date 10-Sep-2015 Revision Date March 13, 2019

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

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 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).

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



Appearance Opaque Grey

Physical state Liquid

Odor Mild

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves, protective clothing, eye protection, face protection Avoid breathing dust, fumes, or vapors Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

Call a POISON CENTER or doctor/physician if you feel unwell

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water

Take off contaminated clothing and wash before reuse

If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

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 5.0000532% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

Substance

Chemical FamilyEpoxy A SideChemical natureEpoxy resin mixture.

Chemical name	CAS No.	Weight-%	Trade secret
Bisphenol A diglycidyl ether resin	25068-38-6	70 - 100	*

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

4. First Aid Measures

Description of first aid measures

General advice 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).

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call

a physician if irritation persists.

Skin contactWash off immediately with plenty of water for at least 15 minutes. Get medical attention if

irritation develops and persists.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

Ingestion Not an expected route of exposure. IF SWALLOWED:. Rinse mouth. Do NOT induce

vomiting. Call a physician or Poison Control Center immediately.

Self-protection of the first aider 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 (CO2);

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 InformationUse 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

Physical stateLiquidAppearanceOpaqueColorGrey

aque **Odor** Mild y **Odor threshold** N/A

<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

Relative density 1.18 Water solubility Negligible Solubility in other solvents N/A Partition coefficient N/A **Autoignition temperature** N/A **Decomposition temperature** N/A Kinematic viscosity N/A **Dvnamic viscosity** N/A

Explosive propertiesNot an explosive

Oxidizing properties N/A

Other Information

Softening point N/A
Molecular weight N/A
VOC Content (%) N/A

Liquid Density 9.84 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. 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

Product Information The product has not been tested.

Inhalation Remove to fresh air.

Eye contact Vapor may cause irritation. Avoid contact with eyes. Contact with eyes may cause irritation.

Skin contact Avoid contact with skin. May cause irritation. Repeated or prolonged skin contact may

cause allergic reactions with susceptible persons.

Ingestion Not an expected route of exposure. Do NOT taste or swallow. May be harmful if swallowed.

Component Information Caution - This preparation contains a substance not yet fully tested

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

Information on toxicological effects

N/A.

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

SETBED A - Expansion Joint Setting Bed A

Skin corrosion/irritation Irritating to skin. Repeated or prolonged contact may cause skin irritation and dermatitis.

Serious eye damage/eye irritation Irritating to eyes.

Irritation Irritating to eyes and skin.

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 skin contact may lead to irritation and to sensitization, possible with

cross-sensitization to other epoxies.

Target organ effectsEyes, Skin.Aspiration hazardN/A.

Numerical measures of toxicity - Product Information

Unknown acute toxicity 5.00000532% 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) 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

Disposal of WastesDisposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated packaging 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

UN/ID no. UN3082

Proper shipping name Environmentally Hazardous substance Liquid N.O.S. (Bisphenol A epoxy resin)

Hazard Class 9
Packing Group III

UN/ID no. UN3082

Proper shipping name Environmentally Hazardous Substance Liquid N.O.S. (Bisphenol A epoxy resin)

Hazard Class 9
Packing Group III

Marine pollutant 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:

IMDG

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

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

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

CERCLA

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

US State Regulations

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

Chemical name	California Proposition 65
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

NFPA Health hazards 2 Flammability 1 Instability 0 Physical and chemical

properties -

HMIS Health hazards 2* Flammability 1 Physical hazards 0 Personal Protection X

Chronic Hazard Star Legend *= Chronic Health Hazard

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

Paga 9 / 9



Setting Bed B SAFETY DATA SHEET

Issuing Date 10-Sep-2015 Revision Date March 13, 2019 Revision Number 1b

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

<u>Substance</u>

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

General advice 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).

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call

a physician if irritation persists.

Skin contact 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.

Inhalation 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.

Ingestion IF SWALLOWED:. Rinse mouth. Do NOT induce vomiting. Call a physician or Poison

Control Center immediately.

Self-protection of the first aider 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 (CO2);

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 RespondersUse personal protective equipment as required.

Environmental precautions

Environmental precautionsDo 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 LimitsThis 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-	S*	(vacated) S*	Ceiling: 0.1 mg/m ³
0	Ceiling: 0.1 mg/m ³	(vacated) Ceiling: 0.1 mg/m ³	

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

Physical state Liquid

Appearance Clear Odor Mild amine odor

Color Light yellow Odor threshold N/A

Property Values Remarks • Method

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

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

Product Information The product has not been tested.

Inhalation Remove to fresh air. Harmful by inhalation.

Eye contact Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including

blindness.

Skin contact 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.

IrritationIrritating to eyes and skin.CorrosivityCorrosive 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	2.1: 72 h Pseudokirchneriella	420: 96 h Poecilia reticulata mg/L	24.1: 48 h Daphnia magna mg/L
112-57-2	subcapitata mg/L EC50	LC50 static	EC50

Persistence and degradability

N/A

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

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

DOTNot regulatedICAO (air)Not regulatedIATANot regulatedIMDGNot 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

Acute Health HazardYesChronic Health HazardYesFire HazardNoSudden Release of Pressure HazardNoReactive HazardNo

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	Х
1,4,7,10,13-Pentaazatridecane 112-57-2	X	X	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other Information				
NFPA	Health hazards 2	Flammability 1	Instability 0	Physical and chemical
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	properties - Personal Protection X
Prepared By	Compliar	nce		

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

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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 I

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 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.

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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)	$\frac{10 \text{ mg/m3}}{\text{\%SiO}_2 + 2 \text{ TWA}}$ (respirable dust) $\frac{30 \text{ mg/m3}}{\text{\%SiO}_2 + 2 \text{ TWA}}$ (total dust)	0.025 mg/m3 TWA (respirable dust)	0.05 mg/m3 TWA (respirable 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/npptl/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/m3, then a respirator with an APF of 10 should reduce the concentration of particulate to 15 ug/m3. 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 additional a cartridge change-out schedule must be developed based on the concentrations in the workplace.

Assigned protection factor ¹	Type of Respirator (Use only NIOSH-certified respirators)
10	Any air-purifying elastomeric half-mask respirator equipped with appropriate type of particulate filter. Appropriate filtering facepiece respirator. Any air-purifying full facepiece respirator equipped with appropriate type of particulate filter. 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.

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

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

Eve 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 pumonale).

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.

<u>Acute Silicosis</u> 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 <u>IARC Monographs on the Evaluation of Carcinogenic Risks to Humans</u>, 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 silicaexposed 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, 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

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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.

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)

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

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

<u>CERCLA</u>: 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.

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

<u>FDA:</u> 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).

<u>California Proposition 65</u>: 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.

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

<u>Texas Commission on Environmental Quality</u>: 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 <u>www.tceq.texas.gov</u>.

CANADA

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

WHMIS Classification: D2A

OTHER NATIONAL INVENTORIES

<u>Australian Inventory of Chemical Substances (AICS)</u>: 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.

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

<u>Korea Existing Chemicals Inventory (KECI)</u> (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 todate 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.



Revision Date 01/26/2017

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 -H373: May cause damage to organs through

repeated exposure, Category 2 (Oral) prolonged or repeated exposure if swallowed.

GHS label elements

Hazard pictograms





Signal Word

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



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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 >= 1%.

3. Composition/information on ingredients

Hazardous ingredients

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



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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.

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 (CO2)

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.

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6. Accidental release measures

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

 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/m3 Total dust
		CAL PEL	PEL	5 mg/m3 respirable dust fraction



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*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 Po. 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

: 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.



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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

No data available Flammability (solid, gas)

Oxidizing properties No data available

рΗ Note: Not applicable

Melting point/range /

Freezing point

Boiling point/boiling range No data available

Vapor pressure 0.01 mmHg (0.01 hpa)

ca.1.12 g/cm3 Density

at 73 °F (23 °C)

No data available

Water solubility Note: insoluble

Partition coefficient: n-

octanol/water

Viscosity, dynamic

Viscosity, kinematic

No data available

No data available

> 20.5 mm2/sat 104 °F (40 °C)

Relative vapor density No data available

No data available Evaporation rate

No data available Burning rate

Volatile organic compounds

(VOC) content

37 g/l



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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 : Extremes of temperature and direct sunlight.

Incompatible materials : No data available

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.



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Carcinogenicity

Not classified based on available information.

IARC Group 2B: Possibly carcinogenic to humans

titanium dioxide 13463-67-7 Carbon black 1333-86-4

NTP 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 plant 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 Sorohan, 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 (DEII, 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



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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 seen 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 aninals 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 no 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.

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.

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

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



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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! 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



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 or 201-933-8800.

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Safety Data Sheet

Sikasil® WS-295

Revision Date 01/26/2017



Material number: 481215



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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 Carcinogenicity , Category 2

Specific target organ systemic toxicity - repeated exposure , Category 1, Lungs

(Inhalation)

H317: May cause an allergic skin reaction. H351: Suspected of causing cancer.

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 : 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. P272 Contaminated work clothing must not be allowed out of



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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/

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 >= 1%.

3. Composition/information on ingredients

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Quartz (SiO2)	14808-60-7	>= 50 - <= 100 %
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	>= 20 - < 25 %
Quartz (SiO2) <5µm	14808-60-7	>= 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.



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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 Environmental precautions : Use personal protective equipment. Deny access to unprotected persons.

: 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).



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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 (SiO2)	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



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Quartz (SiO2) <5μm		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
titanium dioxide	13463-67-7	OSHA P0	TWA	10 mg/m3 Total
		OSHA Z-1	TWA	15 mg/m3 total dust
		OSHA P0	TWA	10 mg/m3 Total dust
		ACGIH	TWA	10 mg/m3

^{*}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



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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 : viscous liquid

Color : gray

Odor : characteristic

Odor Threshold : No data available

Flash point : $> 302 \, ^{\circ}\text{F} \, (> 150 \, ^{\circ}\text{C})$

Ignition temperature : Not applicable

Decomposition temperature : No data available

Lower explosion limit (Vol%) : No data available



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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/cm3

Water solubility : Note: insoluble

Partition coefficient: n-

octanol/water

: No data available

Viscosity, dynamic : No data available

Viscosity, kinematic : > 20.5 mm2/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/I 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

Not classified based on available information.

Skin corrosion/irritation



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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 (SiO2) 14808-60-7

Quartz (SiO2) <5µm 14808-60-7

NTP Known to be human carcinogen

Quartz (SiO2) 14808-60-7 Quartz (SiO2) <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



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local authority requirements.

Contaminated packaging : Empty containers should be taken to an approved waste

handling site for recycling or disposal.

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

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



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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 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



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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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 or 201-933-8800.

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Material number: 417890



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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.



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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/

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

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

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 >= 1%.

3. Composition/information on ingredients

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Quartz (SiO2)	14808-60-7	>= 25 - < 50 %
dibenzoyl peroxide	94-36-0	>= 10 - < 20 %
Quartz (SiO2) <5µm	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.

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.



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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

: Allergic reactions Excessive lachrymation

See Section 11 for more detailed information on health effects

and symptoms.

irritant effects sensitizing effects carcinogenic effects

May cause an allergic skin reaction. Causes serious eye irritation.

May cause cancer.

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

: 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.

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 Environmental precautions : Use personal protective equipment. Deny access to unprotected persons.

: 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 : 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 (SiO2)	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



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				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 PO	TWA	0.1 mg/m3 respirable dust fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction



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*The above mentioned values are in accordance with the legislation in effect at the date of the

**Basis

ACGIH. Threshold Limit Values (TLV)

release of this safety data sheet.

OSHA Po. 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.

9. Physical and chemical properties

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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

Density

Boiling point/boiling range : No data available

Vapor pressure : No data available

at 68 °F (20 °C)

ca.1.55 g/cm3 at 68 °F (20 °C)

No data available

Water solubility : No data available

Partition coefficient: n-

octanol/water

Viscosity, dynamic

: No data available

: No data available

Viscosity, kinematic : > 20.5 mm2/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/I 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

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 (SiO2) 14808-60-7

Quartz (SiO2) <5µm 14808-60-7

NTP Known to be human carcinogen

Quartz (SiO2) 14808-60-7 Quartz (SiO2) <5µm 14808-60-7

Reproductive toxicity

Not classified based on available information.



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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.

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.

Toxic to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.

May be harmful to the environment if released in large

quantities.

Water polluting material.

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

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 964

aircraft)

Packing instruction 964



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(passenger aircraft)

Packing instruction

(passenger aircraft)

Y964

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

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 %



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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



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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Safety Data Sheet

Sika AnchorFix®-2 Part B



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Material number: 426081