

Conforms to HCS 2012 - United States

# SAFETY DATA SHEET

## CRACKBOND® EPOXY REPAIR PASTE PART A



### Section 1. Identification

GHS product identifier : CRACKBOND® EPOXY REPAIR PASTE PART A

Other means of identification :

Product type :

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

Identified uses

Supplier's details :

Emergency telephone number (with hours of operation) :

### Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture :

- SKIN CORROSION/IRRITATION - Category 2
- SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
- SKIN SENSITIZATION - Category 1
- CARCINOGENICITY - Category 1A
- SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
- AQUATIC HAZARD (LONG-TERM) - Category 2

#### GHS label elements

Hazard pictograms :



Signal word : Danger



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## Section 2. Hazards identification

### Hazard statements

- : H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H350 - May cause cancer.
- H372 - Causes damage to organs through prolonged or repeated exposure. (respiratory tract)
- H411 - Toxic to aquatic life with long lasting effects.

### Precautionary statements

#### Prevention

- : P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves, protective clothing and eye or face protection.
- P273 - Avoid release to the environment.
- P260 - Do not breathe dust.
- P270 - Do not eat, drink or smoke when using this product.
- P264 - Wash thoroughly after handling.
- P272 - Contaminated work clothing must not be allowed out of the workplace.

#### Response

- : P391 - Collect spillage.
- P308 + P313 - IF exposed or concerned: Get medical advice or attention.
- P362 + P364 - Take off contaminated clothing and wash it before reuse.
- P363 - Wash contaminated clothing before reuse.
- P302 + P352 - IF ON SKIN: Wash with plenty of water.
- P332 + P313 - If skin irritation occurs: Get medical advice or attention.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 - If eye irritation persists: Get medical advice or attention.

#### Storage

- : P405 - Store locked up.

#### Disposal

- : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Hazards not otherwise classified

- : None known.

## Section 3. Composition/information on ingredients

### Substance/mixture

- : Mixture

### Other means of identification

| Ingredient name                                                                     | %         | CAS number |
|-------------------------------------------------------------------------------------|-----------|------------|
| Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer | ≥50 - ≤75 | 25085-99-8 |
| Crystalline silica, respirable powder                                               | ≥10 - ≤25 | 14808-60-7 |
| 1,4-bis(2,3-Epoxypropoxy)butane                                                     | ≤10       | 2425-79-8  |
| Titanium dioxide                                                                    | ≤3        | 13463-67-7 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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



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## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No known significant effects or critical hazards.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)



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## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

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

: This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### **Hazardous thermal decomposition products**

: Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides

### **Special protective actions for fire-fighters**

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### **Special protective equipment for fire-fighters**

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### **Environmental precautions**

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### Methods and materials for containment and cleaning up

**Small spill** : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.



## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

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

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

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name                                                                                                              | Exposure limits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer<br>Crystalline silica, respirable powder | None.<br><br><b>OSHA PEL Z3 (United States, 6/2016).</b><br>TWA: 250 mppcf / (%SiO <sub>2</sub> +5) 8 hours. Form: Respirable<br>TWA: 10 mg/m <sup>3</sup> / (%SiO <sub>2</sub> +2) 8 hours. Form: Respirable<br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 50 µg/m <sup>3</sup> 8 hours. Form: Respirable dust<br><b>ACGIH TLV (United States, 3/2019).</b><br>TWA: 0.025 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction<br><b>NIOSH REL (United States, 10/2016).</b><br>TWA: 0.05 mg/m <sup>3</sup> 10 hours. Form: respirable dust |
| 1,4-bis(2,3 Epoxypropoxy)butane<br>Titanium dioxide                                                                          | None.<br><b>ACGIH TLV (United States, 3/2019).</b><br>TWA: 10 mg/m <sup>3</sup> 8 hours.<br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust                                                                                                                                                                                                                                                                                                                                                        |

#### Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.



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## Section 8. Exposure controls/personal protection

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

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

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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

**Respiratory protection** : Based on the hazard and potential for exposure, if required, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Solid. [Viscous.]

**Color** : White.

**Odor** : Not available.

**Odor threshold** : Not available.

**pH** : Not available.

**Melting point** : Not available.

**Boiling point** : Not available.

**Flash point** : Not available.

**Evaporation rate** : Not available.

**Flammability (solid, gas)** : Not available.

**Lower and upper explosive (flammable) limits** : Not available.

**Vapor pressure** : Not available.

**Vapor density** : Not available.



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## Section 9. Physical and chemical properties

|                                        |                  |
|----------------------------------------|------------------|
| Relative density                       | : Not available. |
| Solubility                             | : Not available. |
| Solubility in water                    | : Not available. |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature              | : Not available. |
| Decomposition temperature              | : Not available. |
| Viscosity                              | : Not available. |
| Flow time (ISO 2431)                   | : Not available. |
| Volatile organic compounds             | :                |

## Section 10. Stability and reactivity

|                                    |                                                                                                        |
|------------------------------------|--------------------------------------------------------------------------------------------------------|
| Reactivity                         | : No specific test data related to reactivity available for this product or its ingredients.           |
| Chemical stability                 | : The product is stable.                                                                               |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| Conditions to avoid                | : No specific data.                                                                                    |
| Incompatible materials             | : Reactive or incompatible with the following materials: oxidizing materials.                          |
| Hazardous decomposition products   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name          | Result      | Species | Dose       | Exposure |
|----------------------------------|-------------|---------|------------|----------|
| 1,4-bis(2,3 Epoxypropoxy) butane | LD50 Dermal | Rabbit  | 1130 mg/kg | -        |
|                                  | LD50 Oral   | Rat     | 1134 mg/kg | -        |

#### Irritation/Corrosion

| Product/ingredient name          | Result                   | Species | Score | Exposure       | Observation |
|----------------------------------|--------------------------|---------|-------|----------------|-------------|
| 1,4-bis(2,3 Epoxypropoxy) butane | Eyes - Moderate irritant | Rabbit  | -     | 100 mg         | -           |
|                                  | Skin - Moderate irritant | Rabbit  | -     | 24 hours 10 mg | -           |

#### Sensitization

There is no data available.

#### Mutagenicity

There is no data available.



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## Section 11. Toxicological information

### Carcinogenicity

#### Classification

| Product/ingredient name               | OSHA | IARC | NTP                             |
|---------------------------------------|------|------|---------------------------------|
| Crystalline silica, respirable powder | -    | 1    | Known to be a human carcinogen. |
| Titanium dioxide                      | -    | 2B   | -                               |

### Reproductive toxicity

There is no data available.

### Teratogenicity

There is no data available.

### Specific target organ toxicity (single exposure)

There is no data available.

### Specific target organ toxicity (repeated exposure)

| Name                                  | Category   | Route of exposure | Target organs     |
|---------------------------------------|------------|-------------------|-------------------|
| Crystalline silica, respirable powder | Category 1 | inhalation        | respiratory tract |

### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.



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## Section 11. Toxicological information

### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

**General** : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

| Product/ingredient name         | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---------------------------------|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| 1,4-bis(2,3 Epoxypropoxy)butane | 1134         | 1130           | N/A                      | 11                         | N/A                                 |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name | Result                                 | Species                      | Exposure |
|-------------------------|----------------------------------------|------------------------------|----------|
| Titanium dioxide        | Acute LC50 > 1000000 µg/L Marine water | Fish - Fundulus heteroclitus | 96 hours |

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

| Product/ingredient name         | LogP <sub>ow</sub> | BCF | Potential |
|---------------------------------|--------------------|-----|-----------|
| 1,4-bis(2,3 Epoxypropoxy)butane | -0.269             | -   | low       |

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.



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## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                            | DOT Classification | IMDG                                                                                                                                                                         | IATA                                                                                                                                                                             |
|----------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UN number                  | Not regulated.     | UN3077                                                                                                                                                                       | UN3077                                                                                                                                                                           |
| UN proper shipping name    | -                  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Oxirane, 2,2'-(1-methylethylidene)bis (4,1-phenyleneoxymethylene)) bis-, homopolymer)                                    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Oxirane, 2,2'-(1-methylethylidene)bis (4,1-phenyleneoxymethylene)) bis-, homopolymer)                                        |
| Transport hazard class(es) | -                  | 9<br>  | 9<br>  |
| Packing group              | -                  | III                                                                                                                                                                          | III                                                                                                                                                                              |
| Environmental hazards      | No.                | Yes.                                                                                                                                                                         | Yes.                                                                                                                                                                             |

**AERG : 171**

### Additional information

#### IMDG

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

#### IATA

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.



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## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) PAIR: Siloxanes and Silicones, di-Me, reaction products with silica; Siloxanes and Silicones, di-Me  
TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112 : Not listed  
(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 : Not listed  
Class I Substances

Clean Air Act Section 602 : Not listed  
Class II Substances

DEA List I Chemicals : Not listed  
(Precursor Chemicals)

DEA List II Chemicals : Not listed  
(Essential Chemicals)

### SARA 302/304

#### Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

### SARA 311/312

#### Classification

: SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 1A  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

#### Composition/information on ingredients

| Name                                                                                | %         | Classification                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oxirane, 2,2'-(1-methylethylidene)bis (4,1-phenyleneoxymethylene) bis-, homopolymer | ≥50 - ≤75 | SKIN CORROSION/IRRITATION - Category 2<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A<br>SKIN SENSITIZATION - Category 1                                                                                                                           |
| Crystalline silica, respirable powder                                               | ≥10 - ≤25 | CARCINOGENICITY - Category 1A<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1                                                                                                                                                        |
| 1,4-bis(2,3 Epoxypropoxy)butane                                                     | ≤10       | ACUTE TOXICITY (oral) - Category 4<br>ACUTE TOXICITY (dermal) - Category 4<br>ACUTE TOXICITY (inhalation) - Category 4<br>SKIN CORROSION/IRRITATION - Category 2<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A<br>SKIN SENSITIZATION - Category 1 |
| Titanium dioxide                                                                    | ≤3        | CARCINOGENICITY - Category 2                                                                                                                                                                                                                            |

### State regulations

#### **Massachusetts**

: The following components are listed: Crystalline silica, respirable powder; Titanium dioxide

#### **New York**

: None of the components are listed.

#### **New Jersey**

: The following components are listed: Crystalline silica, respirable powder; Titanium dioxide



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## Section 15. Regulatory information

**Pennsylvania** : The following components are listed: Crystalline silica, respirable powder; Titanium dioxide

### California Prop. 65

**⚠ WARNING:** This product can expose you to chemicals including Crystalline silica, respirable powder and Titanium dioxide, which are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

| <b>Ingredient name</b>                | <b>No significant risk level</b> | <b>Maximum acceptable dosage level</b> |
|---------------------------------------|----------------------------------|----------------------------------------|
| Crystalline silica, respirable powder | -                                | -                                      |
| Titanium dioxide                      | -                                | -                                      |

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

**Australia** : All components are listed or exempted.  
**Canada** : All components are listed or exempted.  
**China** : All components are listed or exempted.  
**Europe** : Not determined.  
**Japan** : **Japan inventory (ENCS):** Not determined.  
**Japan inventory (ISHL):** Not determined.  
**New Zealand** : All components are listed or exempted.  
**Philippines** : All components are listed or exempted.  
**Republic of Korea** : All components are listed or exempted.  
**Taiwan** : All components are listed or exempted.  
**Thailand** : Not determined.  
**Turkey** : Not determined.  
**United States (TSCA 8b)** : All components are active or exempted.  
**Viet Nam** : All components are listed or exempted.



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## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

|                  |   |   |
|------------------|---|---|
| Health           | * | 3 |
| Flammability     |   | 0 |
| Physical hazards |   | 0 |
|                  |   |   |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

### Procedure used to derive the classification

| Classification                                                  | Justification      |
|-----------------------------------------------------------------|--------------------|
| SKIN CORROSION/IRRITATION - Category 2                          | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A                | Calculation method |
| SKIN SENSITIZATION - Category 1                                 | Calculation method |
| CARCINOGENICITY - Category 1A                                   | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 | Calculation method |
| AQUATIC HAZARD (LONG-TERM) - Category 2                         | Calculation method |

### History

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of issue/Date of revision | : 08/29/2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Date of previous issue         | : 06/25/2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Version                        | : 1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Prepared by                    | : KMK Regulatory Services Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Key to abbreviations           | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>N/A = Not available<br>SGG = Segregation Group<br>UN = United Nations |
| References                     | : Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



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Conforms to HCS 2012 - United States

# SAFETY DATA SHEET

## CRACKBOND® EPOXY REPAIR PASTE PART B



### Section 1. Identification

GHS product identifier : CRACKBOND® EPOXY REPAIR PASTE PART B

Other means of identification :

Product type :

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

Identified uses

Supplier's details :

Emergency telephone number (with hours of operation) :

### Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture :

- SKIN CORROSION/IRRITATION - Category 1A
- SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
- CARCINOGENICITY - Category 1A
- SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
- AQUATIC HAZARD (LONG-TERM) - Category 3

#### GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements :

- H314 - Causes severe skin burns and eye damage.
- H350 - May cause cancer.
- H372 - Causes damage to organs through prolonged or repeated exposure. (respiratory tract)
- H412 - Harmful to aquatic life with long lasting effects.



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## Section 2. Hazards identification

### Precautionary statements

#### Prevention

- : P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves, protective clothing and eye or face protection.
- P273 - Avoid release to the environment.
- P260 - Do not breathe dust.
- P270 - Do not eat, drink or smoke when using this product.
- P264 - Wash thoroughly after handling.

#### Response

- : P308 + P313 - IF exposed or concerned: Get medical advice or attention.
- P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.
- P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.
- P363 - Wash contaminated clothing before reuse.
- P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

#### Storage

- : P405 - Store locked up.

#### Disposal

- : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

#### Hazards not otherwise classified

- : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** :

| Ingredient name                       | %         | CAS number |
|---------------------------------------|-----------|------------|
| Crystalline silica, respirable powder | ≥50 - ≤75 | 14808-60-7 |
| Phenol, styrenated                    | <25       | 61788-44-1 |
| 2-Methylpentane-1,5-diamine           | ≤10       | 15520-10-2 |
| Hexahydro-m-xylenediamine             | ≤10       | 2579-20-6  |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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

## Section 4. First aid measures

### Description of necessary first aid measures

#### Eye contact

- : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.



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## Section 4. First aid measures

- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.



## Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

### Specific hazards arising from the chemical

- : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### Hazardous thermal decomposition products

- : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
metal oxide/oxides

### Special protective actions for fire-fighters

- : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### Special protective equipment for fire-fighters

- : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

- : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

#### For emergency responders

- : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

#### Small spill

- : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.



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## Section 6. Accidental release measures

### Large spill

- : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

- : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Advice on general occupational hygiene

- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

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

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

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name                                                                | Exposure limits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Crystalline silica, respirable powder                                          | <b>OSHA PEL Z3 (United States, 6/2016).</b><br>TWA: 250 mppcf / (%SiO <sub>2</sub> +5) 8 hours. Form: Respirable<br>TWA: 10 mg/m <sup>3</sup> / (%SiO <sub>2</sub> +2) 8 hours. Form: Respirable<br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 50 µg/m <sup>3</sup> 8 hours. Form: Respirable dust<br><b>ACGIH TLV (United States, 3/2019).</b><br>TWA: 0.025 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction<br><b>NIOSH REL (United States, 10/2016).</b><br>TWA: 0.05 mg/m <sup>3</sup> 10 hours. Form: respirable dust |
| Phenol, styrenated<br>2-Methylpentane-1,5-diamine<br>Hexahydro-m-xylenediamine | None.<br>None.<br>None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



## Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, if required, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

- Appearance**
- Physical state** : Solid. [Viscous.]
- Color** : Gray.
- Odor** : Amine-like.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.



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## Section 9. Physical and chemical properties

|                                        |                  |
|----------------------------------------|------------------|
| Vapor pressure                         | : Not available. |
| Vapor density                          | : Not available. |
| Relative density                       | : Not available. |
| Solubility                             | : Not available. |
| Solubility in water                    | : Not available. |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature              | : Not available. |
| Decomposition temperature              | : Not available. |
| Viscosity                              | : Not available. |
| Flow time (ISO 2431)                   | : Not available. |
| Volatile organic compounds             | :                |

## Section 10. Stability and reactivity

|                                    |                                                                                                        |
|------------------------------------|--------------------------------------------------------------------------------------------------------|
| Reactivity                         | : No specific test data related to reactivity available for this product or its ingredients.           |
| Chemical stability                 | : The product is stable.                                                                               |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| Conditions to avoid                | : No specific data.                                                                                    |
| Incompatible materials             | : Reactive or incompatible with the following materials: oxidizing materials.                          |
| Hazardous decomposition products   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name     | Result                | Species | Dose                   | Exposure |
|-----------------------------|-----------------------|---------|------------------------|----------|
| Phenol, styrenated          | LD50 Dermal           | Rabbit  | >5010 mg/kg            | -        |
| 2-Methylpentane-1,5-diamine | LC50 Inhalation Vapor | Rat     | 2900 mg/m <sup>3</sup> | 1 hours  |
|                             | LD50 Oral             | Rat     | 1690 mg/kg             | -        |
| Hexahydro-m-xylenediamine   | LD50 Oral             | Rat     | 880 mg/kg              | -        |

#### Irritation/Corrosion

| Product/ingredient name     | Result                 | Species | Score | Exposure | Observation |
|-----------------------------|------------------------|---------|-------|----------|-------------|
| 2-Methylpentane-1,5-diamine | Eyes - Severe irritant | Rabbit  | -     | 0.1 mL   | -           |
|                             | Skin - Severe irritant | Rabbit  | -     | 0.5 mL   | -           |

#### Sensitization

There is no data available.



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## Section 11. Toxicological information

### Mutagenicity

There is no data available.

### Carcinogenicity

#### Classification

| Product/ingredient name               | OSHA | IARC | NTP                             |
|---------------------------------------|------|------|---------------------------------|
| Crystalline silica, respirable powder | -    | 1    | Known to be a human carcinogen. |
| Glass, oxide, chemicals               | -    | 3    | -                               |

### Reproductive toxicity

There is no data available.

### Teratogenicity

There is no data available.

### Specific target organ toxicity (single exposure)

| Name                        | Category   | Route of exposure | Target organs                |
|-----------------------------|------------|-------------------|------------------------------|
| 2-Methylpentane-1,5-diamine | Category 3 | -                 | Respiratory tract irritation |

### Specific target organ toxicity (repeated exposure)

| Name                                  | Category   | Route of exposure | Target organs     |
|---------------------------------------|------------|-------------------|-------------------|
| Crystalline silica, respirable powder | Category 1 | inhalation        | respiratory tract |

### Aspiration hazard

There is no data available.

### Information on the likely routes of exposure

: Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

#### Eye contact

: Causes serious eye damage.

#### Inhalation

: No known significant effects or critical hazards.

#### Skin contact

: Causes severe burns.

#### Ingestion

: No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

#### Eye contact

: Adverse symptoms may include the following:  
pain  
watering  
redness

#### Inhalation

: No known significant effects or critical hazards.

#### Skin contact

: Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur

#### Ingestion

: Adverse symptoms may include the following:  
stomach pains



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## Section 11. Toxicological information

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

#### Potential chronic health effects

**General** : Causes damage to organs through prolonged or repeated exposure.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

| Product/ingredient name     | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-----------------------------|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| 2-Methylpentane-1,5-diamine | 1690         | 1100           | N/A                      | 11                         | N/A                                 |
| Hexahydro-m-xylenediamine   | 880          | 1100           | N/A                      | N/A                        | N/A                                 |

## Section 12. Ecological information

### Toxicity

There is no data available.

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

| Product/ingredient name   | LogP <sub>ow</sub> | BCF | Potential |
|---------------------------|--------------------|-----|-----------|
| Hexahydro-m-xylenediamine | 0.783              | -   | low       |

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.



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## Section 12. Ecological information

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                                   | DOT Classification                                                                                                                                                           | IMDG                                                                                      | IATA                                                                                       |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>UN number</b>                  | UN3259                                                                                                                                                                       | UN3259                                                                                    | UN3259                                                                                     |
| <b>UN proper shipping name</b>    | AMINES, SOLID, CORROSIVE, N.O.S. (2-Methylpentane-1,5-diamine, Hexahydro-m-xylenediamine)                                                                                    | AMINES, SOLID, CORROSIVE, N.O.S. (2-Methylpentane-1,5-diamine, Hexahydro-m-xylenediamine) | AMINES, SOLID, CORROSIVE, N.O.S. (2-Methylpentane-1,5-diamine, Hexahydro-m-xylenediamine)  |
| <b>Transport hazard class(es)</b> | 8<br>  | 8<br>  | 8<br> |
| <b>Packing group</b>              | III                                                                                                                                                                          | III                                                                                       | III                                                                                        |
| <b>Environmental hazards</b>      | Yes.                                                                                                                                                                         | No.                                                                                       | No.                                                                                        |

**AERG** : 154

### Additional information

#### DOT Classification

: This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.  
**Remarks** The limited quantity exception can be used for the transportation of this item. Certain restrictions may apply in regards to sizes and packaging. For further information, refer to the applicable transportation of dangerous goods regulation.

#### IATA

: The environmentally hazardous substance mark may appear if required by other transportation regulations.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.



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## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) PAIR: Phenol, styrenated; Siloxanes and Silicones, di-Me  
 TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
 Clean Water Act (CWA) 307: Phenol  
 Clean Water Act (CWA) 311: Phenol

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

| Name   | %    | EHS  | SARA 302 TPQ |           | SARA 304 RQ |           |
|--------|------|------|--------------|-----------|-------------|-----------|
|        |      |      | (lbs)        | (gallons) | (lbs)       | (gallons) |
| Phenol | ≤0.3 | Yes. | 500 / 10000  | -         | 1000        | -         |

**SARA 304 RQ** : 540540.5 lbs / 245405.4 kg

### SARA 311/312

**Classification** : SKIN CORROSION/IRRITATION - Category 1A  
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
 CARCINOGENICITY - Category 1A  
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

#### Composition/information on ingredients

| Name                                  | %         | Classification                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Crystalline silica, respirable powder | ≥50 - ≤75 | CARCINOGENICITY - Category 1A<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1                                                                                                                                                                                                                                                       |
| 2-Methylpentane-1,5-diamine           | ≤10       | FLAMMABLE LIQUIDS - Category 4<br>ACUTE TOXICITY (oral) - Category 4<br>ACUTE TOXICITY (dermal) - Category 4<br>ACUTE TOXICITY (inhalation) - Category 4<br>SKIN CORROSION/IRRITATION - Category 1A<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| Hexahydro-m-xylenediamine             | ≤10       | ACUTE TOXICITY (oral) - Category 4<br>ACUTE TOXICITY (dermal) - Category 4<br>SKIN CORROSION/IRRITATION - Category 1A<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1                                                                                                                                                                               |



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## Section 15. Regulatory information

### State regulations

- Massachusetts** : The following components are listed: Crystalline silica, respirable powder; Glass, oxide, chemicals
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: Crystalline silica, respirable powder
- Pennsylvania** : The following components are listed: Crystalline silica, respirable powder
- California Prop. 65**

**⚠ WARNING:** This product can expose you to Crystalline silica, respirable powder, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

| Ingredient name                       | No significant risk level | Maximum acceptable dosage level |
|---------------------------------------|---------------------------|---------------------------------|
| Crystalline silica, respirable powder | -                         | -                               |

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

- Australia** : Not determined.
- Canada** : All components are listed or exempted.
- China** : Not determined.
- Europe** : Not determined.
- Japan** : **Japan inventory (ENCS):** Not determined.  
**Japan inventory (ISHL):** Not determined.
- New Zealand** : Not determined.
- Philippines** : Not determined.
- Republic of Korea** : Not determined.
- Taiwan** : Not determined.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States (TSCA 8b)** : All components are active or exempted.
- Viet Nam** : Not determined.



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## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

|                  |   |   |
|------------------|---|---|
| Health           | * | 3 |
| Flammability     |   | 0 |
| Physical hazards |   | 0 |
|                  |   |   |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

### Procedure used to derive the classification

| Classification                                                  | Justification      |
|-----------------------------------------------------------------|--------------------|
| SKIN CORROSION/IRRITATION - Category 1A                         | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1                 | Calculation method |
| CARCINOGENICITY - Category 1A                                   | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 | Calculation method |
| AQUATIC HAZARD (LONG-TERM) - Category 3                         | Calculation method |

### History

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of issue/Date of revision | : 08/29/2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Date of previous issue         | : 06/25/2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Version                        | : 1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Prepared by                    | : KMK Regulatory Services Inc..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Key to abbreviations           | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>N/A = Not available<br>SGG = Segregation Group<br>UN = United Nations |
| References                     | : Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



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