

SAFETY DATA SHEET



Date Prepared : 01/27/2010
MSDS No : 159
Date Revised : 05/06/2015
Revision No : 1

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: Bonstone Anchor Epoxy, Part A, all colors and viscosities

MANUFACTURER

Bonstone Materials Corporation
 707 Swan Drive
 Mukwonago, WI 53149
Emergency Contact: Mike Beckmann
Emergency Phone: 262-363-9877
E-Mail: info@bonstone.com

24 HR. EMERGENCY TELEPHONE NUMBERS

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Irritation, Category 1
 Skin Sensitization, Category 1

GHS LABEL



Exclamation mark Environment mark

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H312: Harmful in contact with skin.
 H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H319: Causes serious eye irritation.
 H412: Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P272: Contaminated work clothing should not be allowed out of the workplace.
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264: Wash hands thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.



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P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P272: Contaminated work clothing should not be allowed out of the workplace.

P321: Specific treatment (see ... on this label).

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

P362: Take off contaminated clothing.

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

P370+P378: In case of fire: Use CO₂, powder, or water spray for extinction.

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

P391: Collect spillage.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage:

P403+P235: Store in a well-ventilated place. Keep cool.

Disposal:

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

POTENTIAL HEALTH EFFECTS

EYES: Moderately irritating to the eyes.

SKIN: Causes skin irritation. Allergic reactions are possible.

INGESTION: This material may be harmful or fatal if swallowed.

INHALATION: Prolonged inhalation may be harmful.

CARCINOGENICITY: May cause cancer by inhalation. Attapulgit contains naturally occurring crystalline silica. However, in reviewing this material, IARC has determined that there is inadequate evidence of carcinogenicity to humans and experimental animals (Group 3). Prolonged or repeated inhalation of dust may cause lung damage.

SENSITIZATION: May cause skin sensitization, an allergic reaction which becomes evident on exposure to this material.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | Wt.% | CAS |
|--|---------------|------------|
| Bisphenol A/epichlorohydrin Resin | Trade secret | 25068-38-6 |
| Oxirane, [[4-(1,1-dimethylethyl)phenoxy]methyl]- | Trade secret | 3101-60-8 |
| Talc | Trade secret | 14807-96-6 |
| Titanium Dioxide | Trade secret | 13463-67-7 |
| Clay | Trade secret | 8031-18-3 |
| Magnesium Oxide | 0.043 - 0.086 | 1309-48-4 |
| Silica, Crystalline | 0.043 - 0.43 | 14808-60-7 |

4. FIRST AID MEASURES

EYES: Flush eye with water for 15 minutes. Get medical attention.

SKIN: Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately before reuse.

INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

INHALATION: Prolonged or excessive inhalation may cause respiratory tract irritation.

CHRONIC EFFECTS: NIOSH has studied the exposure effects of attapulgite, which contains crystalline silica, on pulmonary function and has determined that there is no evidence of significant respiratory morbidity. Prolonged or repeated inhalation of crystalline silica dust may cause disabling, progressive pulmonary fibrosis (silicosis). May cause chronic bronchitis.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

FIRE FIGHTING PROCEDURES: Use alcohol foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material. Firefighters and others who may be exposed to products of combustion should wear full firefighting turnout gear and self-contained breathing apparatus. Firefighting equipment should be thoroughly decontaminated after use.

FIRE FIGHTING EQUIPMENT: Firefighters and others who may be exposed to products of combustion should wear full firefighting turnout gear and self-contained breathing apparatus. Firefighting equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Absorb the liquid and scrub the area with detergent and water.

RELEASE NOTES: Notify authorities if any exposures to the general public or environment occurs or is likely to occur.

SPECIAL PROTECTIVE EQUIPMENT: Remove contaminated clothing and wash before reuse.

COMMENTS: If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in an appropriate chemical waste container. Transfer to containers by suction, preparatory for later disposal. Place in metal containers for recovery or disposal. Flush area with water spray. Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled material with a vacuum truck.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin, and clothing.

HANDLING: Wash hands before eating and wash before reuse.

STORAGE: Store in a tightly closed container.

COMMENTS: Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

| OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200) | | | | | | | |
|---|-------------|-----------------|--------------------------------|-----------|----------------------------|--------------|-------------------------|
| | | EXPOSURE LIMITS | | | | | |
| | | OSHA PEL | | ACGIH TLV | | Supplier OEL | |
| Chemical Name | | ppm | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ |
| Talc | TWA | | | | 2 mg/m ³ | | |
| Titanium Dioxide | TWA | NL [1] | 10 [1] | NL | 10 | NL | NL |
| | STEL | NL | NL | NL | NL | NL | NL |
| Silica, Crystalline | TWA | NL ppm [1] | (0.1) mg/m ³ [1] | NL ppm | (0.1) mg/m ³ | NL ppm | NL mg/m ³ |
| | STEL | NL ppm | NL mg/m ³ | NL ppm | NL mg/m ³ | NL ppm | NL mg/m ³ |
| Footnotes: | | | | | | | |
| 1. NL = Not Listed | | | | | | | |

ENGINEERING CONTROLS: Use only in a well ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

WORK HYGIENIC PRACTICES: Provide readily accessible eyewash stations and safety showers. Wash at the end of each work shift and before eating, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

COMMENTS: Avoid breathing any (dust, vapor, mist, gas) that may be generated when grinding cured material.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Chemical Name | Flash Point (°C) | Boiling Point (°C) | Freezing Point (°C) | Solubility in Water | Specific Gravity |
|--|------------------|--------------------|---------------------|---------------------|------------------|
| Bisphenol A/epichlorohydrin Resin | 480 | | | Negligible | 1.17 |
| Oxirane, [[4-(1,1-dimethylethyl)phenoxy]methyl]- | 200.01 | | | Negligible | |
| Titanium Dioxide | | | 1000 | | 4 |
| Clay | | | | Negligible | 1 |
| Silica, Crystalline | | 2230 | 1710 | | 2.65 |

PHYSICAL STATE: Paste

APPEARANCE: Viscous liquid

COLOR: Tan

PERCENT VOLATILE: 0

FLASHPOINT AND METHOD: > (200°F)

SOLUBILITY IN WATER: Negligible

SPECIFIC GRAVITY: 1.387

(VOC): = 0 (no VOC's)

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: Stable.

CONDITIONS TO AVOID: Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases---especially primary and secondary aliphatic amines. Reaction with some curing agents may produce considerable heat. Runaway cure actions may char and decompose the resin system, generating unidentified fumes and vapors which may be toxic.

HAZARDOUS DECOMPOSITION PRODUCTS: The byproducts expected in incomplete pyrolysis or combustion of epoxy resins are mainly phenolics, carbon monoxide and water. The thermal decomposition products of epoxy resins therefore should be treated as potentially hazardous substances, and appropriate precautions should be taken.

11. TOXICOLOGICAL INFORMATION

ACUTE

| Chemical Name | ORAL LD ₅₀ (rat) | DERMAL LD ₅₀ (rabbit) |
|-----------------------------------|--------------------------------|-------------------------------------|
| Bisphenol A/epichlorohydrin Resin | 11.4 g/kg (rat) | > 20 ml/kg (rabbit) |
| Titanium Dioxide | > 7500 mg/kg (rat) | |

CARCINOGENICITY

| Chemical Name | NTP Status | IARC Status | OSHA Status | Other |
|---------------------|---------------|------------------------------|----------------|---|
| Silica, Crystalline | Yes | Y1=Carcinogenic to humans | No | ACGIH: A2=Confirmed human carcinogen |

IARC: Suspect cancer hazard.

Notes: The International Agency for Research on Cancer (IARC) has concluded that crystalline silica, inhaled in the form of quartz or cristobalite from occupational sources, is carcinogenic to humans (Group 1). [IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, "Silica, Some Silicates, Coal Dust and para--Aramid Fibrils," Vol. 68, 1997.] The National Toxicology Program (NTP) has concluded that respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is known to be a human carcinogen.

COMMENTS: Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects. Results of immunogenicity tests in animals have been negative. Has been shown to be negative in some in- vitro immunogenicity tests and positive in others.

12. ECOLOGICAL INFORMATION

COMMENTS: No information.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Recover, reclaim or recycle when practical. Dispose of in accordance with federal, state and local regulations. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements be more restrictive or otherwise different from federal laws and regulations.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)****OTHER SHIPPING INFORMATION:** Not regulated by DOT**15. REGULATORY INFORMATION****UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****313 REPORTABLE INGREDIENTS:** Not considered a SARA 313 "Toxic Chemical".**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

| Chemical Name | CAS |
|-----------------------------------|------------|
| Bisphenol A/epichlorohydrin Resin | 25068-38-6 |
| Clay | 8031-18-3 |
| Silica, Crystalline | 14808-60-7 |

TSCA STATUS: All ingredients in this mixture are in compliance with TSCA.**STATES WITH SPECIAL REQUIREMENTS**

| Chemical Name | Requirements |
|---------------------|---|
| Titanium Dioxide | MA, NJ, PA, RI: TiO ₂ is on the Right-to-Know list for these states. |
| Silica, Crystalline | CA, MA, PA: Crystalline Silica is on the Right-to-know lists for these states. |

CALIFORNIA PROPOSITION 65

| Chemical Name | Wt. % | Listed |
|---------------------|--------------|--------|
| Clay | Trade secret | Cancer |
| Silica, Crystalline | 0.043 - 0.43 | Cancer |

CANADA**WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):** This product and/or all of its components is/are listed on the TSCA Inventory.**WHMIS CLASS:** WHMIS Class D Division 2 Subdivision A**16. OTHER INFORMATION****REASON FOR ISSUE:** New MSDS format**APPROVED BY:** Mike Beckmann **TITLE:** President**Date Revised:** 05/06/2015**INFORMATION CONTACT:** Mike Beckmann**REVISION SUMMARY:** This SDS replaces the 01/27/2010 SDS. Revised: **Section 1:** PRODUCT CODE, REASON FOR ISSUE. **Section 2:** .**MANUFACTURER DISCLAIMER:** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not 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 any process, unless specified in the text.

SAFETY DATA SHEET



Date Prepared : 04/01/2014

MSDS No : 88

Date Revised : 05/06/2015

Revision No : 3

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: Bonstone ANCHOR Curing Agent, Part B (B-412X)

MANUFACTURER

Bonstone Materials Corporation
 707 Swan Drive
 Mukwonago, WI 53149
Emergency Contact: Mike Beckmann
Emergency Phone: 262-363-9877
E-Mail: info@bonstone.com

24 HR. EMERGENCY TELEPHONE NUMBERS

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Acute Toxicity (Dermal), Category 4
 Acute Toxicity (Inhalation), Category 3
 Acute Toxicity (Oral), Category 3
 Mutagenicity, Category 2
 Skin Corrosion, Category 1B
 Skin Sensitization, Category 1

Environmental:

Chronic Hazards to the Aquatic Environment, Category 3

GHS LABEL



Corrosion



Health
hazard



Skull and
crossbones

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H301 + H331: Toxic if swallowed or if inhaled.
 H312: Harmful in contact with skin.
 H314: Causes severe skin burns and eye damage.
 H317: May cause an allergic skin reaction.
 H341: Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H373: May cause damage to the central nervous system, the peripheral nervous system, the kidneys, the liver, and the heart through prolonged or repeated exposure. Route of exposure: Oral, Inhalation, Dermal.

H412: Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

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

Response:

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/...

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P314: Get medical advice/attention if you feel unwell.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal:

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

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Corrosive. Will cause eye burns and permanent tissue damage.

POTENTIAL HEALTH EFFECTS

SKIN: Causes skin burns, irritation and possible allergic reaction.

SKIN ABSORPTION: May be absorbed through the skin in harmful amounts.

INGESTION: Can burn mouth, throat and stomach.

INHALATION: Persons with asthmatic type conditions, chronic bronchitis or other respiratory diseases, or recurrent skin eczema or sensitization should be excluded from working with the product.

CARCINOGENICITY: May cause cancer by inhalation. Attapulgit contains naturally occurring crystalline silica. However, in reviewing this material, IARC has determined that there is inadequate evidence of carcinogenicity to humans and experimental animals (Group 3). Prolonged or repeated inhalation of dust may cause lung damage.

IRRITANCY: Harmful by inhalation, contact with skin/eyes, and if swallowed.

SENSITIZATION: May cause skin sensitization, an allergic reaction which becomes evident on exposure to this material.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | Wt.% | CAS |
|-------------------------------|---------------|------------|
| Trimethylhexamethylenediamine | Trade secret | 25620-58-0 |
| Polyamide resin | Trade secret | 68410-23-1 |
| Dipropylene glycol dibenzoate | Trade secret | 27138-31-4 |
| Nepheline Syenite | Trade secret | 37244-96-5 |
| Clay | Trade secret | 8031-18-3 |
| Phenol | 2.5 - 3.75 | 108-95-2 |
| Styrene Oxide | 0.08 - 0.64 | 96-09-3 |
| Magnesium Oxide | 0.024 - 0.048 | 1309-48-4 |
| Silica, Crystalline | 0.024 - 0.24 | 14808-60-7 |

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Thoroughly wash or discard clothing and shoes before reuse.

INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes eye irritation.

INHALATION: May cause respiratory sensitization or asthma in susceptible individuals. Excessive exposure may cause irritation upper respiratory tract.

CHRONIC EFFECTS: NIOSH has studied the exposure effects of attapulgite, which contains crystalline silica, on pulmonary function and has determined that there is no evidence of significant respiratory morbidity. Prolonged or repeated inhalation of crystalline silica dust may cause disabling, progressive pulmonary fibrosis (silicosis). May cause chronic bronchitis.

NOTES TO PHYSICIAN: Corrosive. May cause stricture. If lavage is performed, suggest endotracheal and/or esophagoscopy control. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

EXTINGUISHING MEDIA: Use alcohol foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE FIGHTING PROCEDURES: Use alcohol foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material. Firefighters and others who may be exposed to products of combustion should wear full firefighting turnout gear and self-contained breathing apparatus. Firefighting equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including ignitable vapors, have been removed thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and

gravel, etc. as necessary and place in closed containers for disposal.

GENERAL PROCEDURES: Contain spill with dike to prevent entry into sewers.

RELEASE NOTES: Notify authorities if any exposures to the general public or environment occurs or is likely to occur.

SPECIAL PROTECTIVE EQUIPMENT: Remove contaminated clothing and wash before reuse.

COMMENTS: If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in an appropriate chemical waste container. Transfer to containers by suction, preparatory for later disposal. Place in metal containers for recovery or disposal. Flush area with water spray. Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled material with a vacuum truck.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Use with adequate ventilation.

HANDLING: Ground and bond containers when transferring material.

STORAGE: Store in a tightly closed container.

COMMENTS: Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

| OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200) | | | | | | | |
|--|------|-----------------|-----------------------------|-----------|--------------------------|--------------|----------------------|
| | | EXPOSURE LIMITS | | | | | |
| | | OSHA PEL | | ACGIH TLV | | Supplier OEL | |
| Chemical Name | | ppm | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ |
| Phenol | TWA | 5 ppm [1] | 19 mg/m ³ [1] | 5 ppm [1] | 19 mg/m ³ [1] | NL ppm | NL mg/m ³ |
| | STEL | NL ppm | NL mg/m ³ | NL ppm | NL mg/m ³ | NL ppm | NL mg/m ³ |
| Styrene Oxide | TWA | | | | | 10 [2] | [2] |
| Silica, Crystalline | TWA | NL ppm [3] | (0.1) mg/m ³ [3] | NL ppm | (0.1) mg/m ³ | NL ppm | NL mg/m ³ |
| | STEL | NL ppm | NL mg/m ³ | NL ppm | NL mg/m ³ | NL ppm | NL mg/m ³ |
| Footnotes: | | | | | | | |
| 1. S = Skin | | | | | | | |
| 2. 10 ppm skin TWA (supplier); none established by ACGIH & OSHA. | | | | | | | |
| 3. NL = Not Listed | | | | | | | |

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

SKIN: Wash thoroughly after handling.

RESPIRATORY: NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances

where air purifying respirators may not provide adequate protection.

WORK HYGIENIC PRACTICES: Provide readily accessible eyewash stations and safety showers. Wash at the end of each work shift and before eating, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

COMMENTS: Avoid breathing any (dust, vapor, mist, gas) that may be generated when grinding cured material.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Chemical Name | Flash Point (°C) | Boiling Point (°C) | Freezing Point (°C) | Solubility in Water | Specific Gravity |
|-------------------------------|------------------|--------------------|---------------------|---------------------|------------------|
| Trimethylhexamethylenediamine | 256 | | | | 0.99 |
| Polyamide resin | 365 | | | | 0.97 |
| Dipropylene glycol dibenzoate | 390 | | | | 1.12 |
| Clay | | | | Negligible | 1 |
| Styrene Oxide | 180 | 194 | -36.8 | | 1.055 |
| Silica, Crystalline | | 2230 | 1710 | | 2.65 |

PHYSICAL STATE: Paste

ODOR: Amine

APPEARANCE: Viscous liquid

COLOR: Buff (tan)

PERCENT VOLATILE: 0

FLASHPOINT AND METHOD: > (200°F)

FLAMMABLE LIMITS: 0 to 1

SOLUBILITY IN WATER: Negligible

SPECIFIC GRAVITY: 1.49

(VOC): = 0 (no VOC's)

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: Stable.

CONDITIONS TO AVOID: Extreme heat, exposure to active metal alloys and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides, carbon dioxide, and carbon monoxide.

INCOMPATIBLE MATERIALS: Epoxy resins under uncontrolled conditions.

11. TOXICOLOGICAL INFORMATION

ACUTE

| Chemical Name | ORAL LD ₅₀ (rat) | DERMAL LD ₅₀ (rabbit) | INHALATION LC ₅₀ (rat) |
|-------------------------------|--------------------------------|-------------------------------------|--------------------------------------|
| Trimethylhexamethylenediamine | ≥ 900 mg/kg (rat) | | |
| Dipropylene glycol dibenzoate | 4673 mg/kg (rat) | > 2000 mg/kg (rabbit) | > 200 mg/l (rat) |
| Phenol | ≥ 317 mg/kg (rat) | ≥ 850 mg/kg (rabbit) | ≥ 0.316 mg/l (rat) |

EYE EFFECTS: May cause severe irritation with corneal injury, which may result in permanent impairment of vision, even blindness. Vapors may irritate eyes.

SKIN EFFECTS: May cause severe injury to skin following prolonged or repeated contact, and may cause skin sensitization or other allergic responses.

CARCINOGENICITY

| Chemical Name | NTP Status | IARC Status | OSHA Status | Other |
|---------------------|---------------|------------------------------|----------------|---|
| Silica, Crystalline | Yes | Y1=Carcinogenic to humans | No | ACGIH: A2=Confirmed human carcinogen |

IARC: Suspect cancer hazard.

Notes: The International Agency for Research on Cancer (IARC) has concluded that crystalline silica, inhaled in the form of quartz or cristobalite from occupational sources, is carcinogenic to humans (Group 1). [IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, "Silica, Some Silicates, Coal Dust and para--Aramid Fibriils," Vol. 68, 1997.] The National Toxicology Program (NTP) has concluded that respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is known to be a human carcinogen.

GENERAL COMMENTS: Slight to very low toxicity.

COMMENTS: The clay component, like other naturally occurring minerals, contains crystalline silica.

12. ECOLOGICAL INFORMATION

COMMENTS: No information.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Recover, reclaim or recycle when practical. Dispose of in accordance with federal, state and local regulations. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements be be more restrictive or otherwise different from federal laws and regulations.

14. TRANSPORT INFORMATION

COMMENTS: Amines, Liquid, Corrosive, N.O.S. (Trimethylenehexane-1,6-diamine), Class 8, UN 2735, Packing Group II

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Immediate health hazard, delayed health hazard.

EPCRA SECTION 313 SUPPLIER NOTIFICATION

| Chemical Name | Wt. % | CAS |
|---------------|-------------|----------|
| Phenol | 2.5 - 3.75 | 108-95-2 |
| Styrene Oxide | 0.08 - 0.64 | 96-09-3 |

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

| Chemical Name | Wt. % |
|---------------|-------------|
| Styrene Oxide | 0.08 - 0.64 |

TSCA (TOXIC SUBSTANCE CONTROL ACT)

| Chemical Name | CAS |
|-------------------------------|------------|
| Trimethylhexamethylenediamine | 25620-58-0 |
| Clay | 8031-18-3 |
| Phenol | 108-95-2 |
| Silica, Crystalline | 14808-60-7 |

TSCA STATUS: All chemicals in this product are listed in the TSCA inventory.

STATES WITH SPECIAL REQUIREMENTS

| Chemical Name | Requirements |
|---------------------|--|
| Styrene Oxide | MA, PA: Styrene Oxide is on the Right-to-Know list for these states. |
| Silica, Crystalline | CA, MA, PA: Crystalline Silica is on the Right-to-know lists for these states. |

CALIFORNIA PROPOSITION 65

| Chemical Name | Wt. % | Listed |
|---------------------|--------------|--------|
| Clay | Trade secret | Cancer |
| Styrene Oxide | 0.08 - 0.64 | Cancer |
| Silica, Crystalline | 0.024 - 0.24 | Cancer |

CANADA

WHMIS CLASS: WHMIS Class D Division 2 Subdivision A

16. OTHER INFORMATION

REASON FOR ISSUE: New MSDS format

APPROVED BY: Mike Beckmann **TITLE:** President

Date Revised: 05/06/2015

INFORMATION CONTACT: Mike Beckmann

REVISION SUMMARY: This SDS replaces the 04/01/2014 SDS. Revised: **Section 1:** REASON FOR ISSUE. **Section 2:** .

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