F3: Epoxies

SAFETY DATA SHEET
(Complies with OSHA 29 CFR 1910.1200)

SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies
5 Concourse Parkway, Suite 1900
Atlanta, GA 30328

Emergency Telephone Number
INFOTRAC (800) 535-5053

Information Telephone Number
(800) 282-5828

SDS F3A
Revision: Jan-19

NOTE: TWO SDS ARE REQUIRED FOR THESE PRODUCTS

QUIKRETE® Product Name | Item #(s)
--------------------------|---------
ANCHORING EPOXY – FASTSET (PART A) | 8620-30
ANCHORING EPOXY – HIGH STRENGTH (PART A) | 8620-31
ANCHORING EPOXY – FASTSET™ FAST-SETTING (PART A) | 8620-34
ANCHORING EPOXY – FASTSET™ HIGH STRENGTH (PART A) | 8620-35

Product Use: Epoxies for anchoring objects to concrete.

See most current revision of this document at www.QUICKRETE.com.

SECTION II - HAZARD IDENTIFICATION

Hazard-determining components of labeling:
2.1 Classification of the substance or mixture
Skin Corrosion– Category 1C
Eye Damage – Category 1
Skin Sensitization – Category 1
Carcinogenicity – Category 1A
Toxic to Reproduction (Fertility) – Category 1B
Toxic to Reproduction (Unborn Child) – Category 1B
Specific Target Organ Toxicity (Repeated Exposure) – Category 1 (lungs/respiratory tract)
Aquatic Hazard (Long Term) – Category 2

2.2a Signal word Danger

2.2b Hazard Statements
Causes severe skin burns and eye damage
May cause an allergic skin reaction
May cause cancer
May damage fertility or the unborn child
Causes damage to organs through prolonged or repeated exposure (lungs, respiratory tract)
Toxic to aquatic life with long lasting effects.

2.2c Pictograms

2.2d Precautionary statements
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid contact with the skin and eyes
Avoid breathing fumes
Avoid exposure during pregnancy.
Wear protective gloves, eye protection and clothing.
Do not eat, drink or smoke when using this product.

If on skin (or hair): Remove material immediately! Cured material can be removed only mechanically with damage to skin. Immediately wash all contaminated body and clothing thoroughly.
If in eyes: Immediately rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing and seek immediate medical attention.
If inhaled: remover person to fresh air and keep comfortable for breathing.
If swallowed: immediately call a poison control center or physician. Rinse mouth. Do NOT induce vomiting.
If you experience a burn, rash or skin irritation: immediately seek medical attention.

Immediately seek medical attention if symptoms are significant or persist.

Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/containers in accordance with all regulations.

2.3 Additional Information
Carcinogenicity
This product contains titanium dioxide which IARC has classified as a Group 2B carcinogen (possibly carcinogenic to humans). Evidence is based on sufficient animal testing as a result of long-term inhalation at high concentrations of respirable amounts of titanium dioxide. Because this
If the product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. Note: sanding of this product will create a possible dust hazard.

This product contains crystalline silica (quarts sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. Note: sanding of this product will create a possible silica dust hazard.

This product contains ethylene glycol which is not classified by IARC but is listed by the State of California for reproductive toxicity. California reports from an NTP report that ethylene glycol causes reproductive toxicity (developmental endpoint) at high oral doses.

2.3a HNOC – Hazards not otherwise classified: Not applicable

2.3b Unknown Acute Toxicity: None known

### SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS No.</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diglycidyl Ether of Bisphenol A</td>
<td>25085-99-8</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Quartz Silica Sand (Crystalline Silica)</td>
<td>14808-60-7</td>
<td>40 - 70</td>
</tr>
<tr>
<td>Trimethylolpropane triglycidyl ether</td>
<td>30499-70-8</td>
<td>7 - 15</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>107-21-1</td>
<td>1-5</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>1-5</td>
</tr>
</tbody>
</table>

*The concentrations ranges are provided due to batch-to-batch variability.*

### SECTION IV – FIRST AID MEASURES

4.1 Description of the first-aid measures

General information:

- **Inhalation:** Move to fresh air; give oxygen if breathing is difficult. Call a physician if symptoms persist.
- **Eyes:** Immediately rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing and seek immediate medical attention.
- **Skin:** Remove material immediately! Cured material can be removed only mechanically with damage to skin. Immediately wash all contaminated body and clothing thoroughly.
- Remove contaminated clothing. Wash with mild soap and water. Get medical attention if skin irritation or dermatitis persists.
- **Ingestion:** Give plenty of water. DO NOT induce vomiting. Call a physician immediately.
- **Other:** Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure. If sensitization occurs, future contact with the material should be avoided.
4.2 Most important symptoms/effects, acute and delayed

Inhalation: Prolonged or repeated inhalation of fumes or dust may cause lung damage or cancer

Skin contact: Causes severe burns. May cause an allergic skin reaction.

Eye Contact: Causes serious eye damage.

Ingestion: May damage fertility or the unborn child.

4.3 Indication of immediate medical attention and special treatment needed:
Treat symptomatically. Contact poison treatment specialist immediately if ingested or inhaled.

SECTION V - FIRE FIGHTING MEASURES

5.1 Flammability of the Product: Combustible

5.2 Suitable extinguishing agents: Firefighters must wear self-contained breathing apparatus and full protective clothing to prevent contact with toxic and/or irritating fumes.

5.3 Special hazards arising from the substance or mixture: 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.

5.3a Products of Combustion: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds, metal oxide/oxides.

5.3b Explosion Hazards in Presence of Various Substances: None known

SECTION VI – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Wear personal protective equipment (See section VIII). Keep unprotected persons away.

6.2 Methods and material for containment and cleaning up:
Cover spills with sawdust, vermiculite, or other absorbent material to minimize spreading of the material before collecting. Do not allow to enter sewers/surface or ground water. Dispose of unwanted materials and containers properly in accordance with all regulations.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

7.1 Handling

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Avoid inhalation of vapors. Use with adequate ventilation. Use appropriate personal protection equipment (Section 8). Wash thoroughly after handling.

7.2 Storage

Requirements to be met by storerooms and receptacles: Store in a cool dry place away from direct sunlight. Keep from freezing. Recommended storage temperature range in between 4 °C and 32 °C (40°F and 90°F).
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep out of the reach of children.

SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION

8.1 Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS No.</th>
<th>PEL (OSHA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diglycidyl Ether of Bisphenol A</td>
<td>25085-99-8</td>
<td>None</td>
</tr>
<tr>
<td>Quartz Silica Sand (Crystalline Silica)</td>
<td>14808-60-7</td>
<td>10/(%SiO2)</td>
</tr>
<tr>
<td>Trimethylolpropane triglycidyl ether</td>
<td>30499-70-8</td>
<td>None</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>107-21-1</td>
<td>10</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>15 (total dust)</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Use local and general exhaust ventilation to maintain airborne concentrations below TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. Avoid exposure during pregnancy. Persons with a history of skin sensitization problems should not be exposed to this product for inhalation or skin contact. Once sensitized to this product, a severe allergic reaction may occur when subsequently exposed to even very low levels.

8.3 General protective and hygienic measures
Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

8.3a Personal protective equipment

Protection of hands:
Wear gloves of adequate length to offer appropriate skin protection. Neoprene, nitrile rubber, or PVC gloves have been found to offer adequate protection for incidental contact.

Eye protection:
Wear approved eye protection properly fitted dust- or splash-proof chemical safety glasses.

Respiratory protection:
A S-Series half mask respirator with organic vapor cartridges (black) will reduce exposure, especially in poorly ventilated areas, when use is frequent, or when permissible exposure limits may be exceeded.
SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>White Paste</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Odor:</td>
<td>Slight Odor</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity (H₂O=1):</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (Air = 1):</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC Content:</td>
<td>See section 9 of part B for VOC content.</td>
</tr>
<tr>
<td>pH:</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>Not available</td>
</tr>
</tbody>
</table>

SECTION X – STABILITY AND REACTIVITY

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

10.2 Chemical stability
Stable under normal storage conditions.

10.3 Possibility of hazardous reaction
No dangerous reaction known under conditions of normal use.

10.4 Thermal decomposition / conditions to be avoided
No specific data.

10.5 Incompatible materials Oxidizing agents

10.6 Hazardous Decomposition or By-products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION XI – TOXICOLOGICAL INFORMATION

11. Toxicological Information (Part A)
Acute Oral Toxicity: Ethylene Glycol – LD₅₀ (Rat) 4700 mg/kg

Skin Irritation: Irritating to skin. The product has not been tested. The statement has been derived from the properties of the individual components.

Eye Irritation: Irritating to eyes. The product has not been tested. The statement has been derived from the properties of the individual components.

Respiratory Irritation: Inhalation of vapors or mists may cause irritation to the respiratory system.
**Sensitization:** May cause allergic skin reaction and irritation to the respiratory system. The product has not been tested. The statement has been derived from the properties of the individual components.

**Carcinogenicity Classification:**
*Quartz Silica Sand (Crystalline Silica)* - See Part A Section 2.
*IARC Group1:* Known human carcinogen based on human evidence.
*NTP (National Toxicology Program)* has classified Crystalline Silica as a known human carcinogen.

**Potential acute health effects**
- **Eye Contact**
  - Causes serious eye damage.
- **Inhalation**
  - None known
- **Skin Contact**
  - Causes severe burns. May cause an allergic skin reaction.

**Potential chronic health effects**
- **General:** Causes damage to lungs/respiratory tract 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.
- **Teratogenicity:** May damage the unborn child.
- **Fertility Effects:** May damage fertility.

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**SECTION XII – ECOLOGICAL INFORMATION**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>Acute LC50 &gt;1000000 μg/L Marine water</td>
<td>Fish - Fundulus heteroclitus</td>
<td>96 hours</td>
</tr>
<tr>
<td>Ethanediol</td>
<td>Acute LC50 6900000 μg/L Fresh water</td>
<td>Crustaceans - Ceriodaphnia dubia –Neonate 48 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute LC50 4100000 μg/L Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 8050000 μg/L Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LogPow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>-1.36</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility:** Soil/water partition coefficient ($K_{OC}$) – Not available.

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**SECTION XIII – DISPOSAL CONSIDERATIONS**

**13.1 Waste Disposal Method**
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. Avoid dispersal of spilled material.
and runoff and contact with soil, waterways, drains and sewers. If the material as supplied becomes a waste, dispose in accordance with federal, state and local regulations.

SECTION XIV – TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT (U.S.)</th>
<th>TDG (Canada)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Regulated</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>Transport Hazard Class(es)</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>Packing Group (if applicable)</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>

14.1 Environmental hazards:
Not Available

14.2 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code
Not available

14.3 Special precautions for user
Do not handle until all safety precautions have been read and understood.

SECTION XV – OTHER REGULATORY INFORMATION

Federal Regulations:

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERCLA RQ</td>
<td>CAS #</td>
</tr>
<tr>
<td>5000 lbs</td>
<td>107-21-1</td>
</tr>
</tbody>
</table>

SARA Title 311/312
Skin Corrosion – Category 1C
Eye Damage – Category 1
Skin Sensitization – Category 1
Carcinogenicity – Category 1A
Toxic to Reproduction (Fertility) – Category 1B
Toxic to Reproduction (Unborn Child) – Category 1B
Specific Target Organ Toxicity (Repeated Exposure) – Category 1 (lungs/respiratory tract)

Sara Title 313
Form R Reporting Requirements: Ethylene Glycol (CAS 107-21-1)
Supplier Notification: Ethylene Glycol (CAS 107-21-1)

State Regulations:

<table>
<thead>
<tr>
<th>State RTK</th>
<th>CAS #</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NJ, MA, PA</td>
<td>25085-99-8</td>
<td>Diglycidyl Ether of Bisphenol A</td>
</tr>
</tbody>
</table>

SDS F3A QUIKRETE Companies, LLC 1/3/2019
107-21-1  Ethylene Glycol
14808-60-7  Quartz Silica Sand (Crystalline Silica)
13463-67-7  Titanium Dioxide

State Right to Know Laws  
California Prop. 65 Components

WARNING: This product can expose you to chemicals including crystalline silica which is known to the State of California to cause cancer, and Ethylene Glycol which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION XVI – OTHER INFORMATION

Last Updated: January 3, 2019

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

Prepared by  The QUIKRETE Companies, LLC

End of SDS
F3: Epoxies

SAFETY DATA SHEET
(Complies with OSHA 29 CFR 1910.1200)

SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies
5 Concourse Parkway, Suite 1900
Atlanta, GA 30328

Emergency Telephone Number
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Information Telephone Number
(800) 282-5828

SDS F3B
Revision: Jan-19

NOTE: TWO SDS ARE REQUIRED FOR THESE PRODUCTS

QUIKRETE® Product Name | Item #(s)
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ANCHORING EPOXY – FASTSET (PART B) | 8620-30
ANCHORING EPOXY – HIGH STRENGTH (PART B) | 8620-31
ANCHORING EPOXY – FASTSET™ FAST-SETTING (PART B) | 8620-34
ANCHORING EPOXY – FASTSET™ HIGH STRENGTH (PART B) | 8620-35

Product Use: Epoxies for anchoring objects to concrete.

See most current revision of this document at www.QUIKRETE.com.

SECTION II - HAZARD IDENTIFICATION

Hazard-determining components of labeling:

2.1 Classification of the substance or mixture
Skin Corrosion– Category 1B
Eye Damage – Category 1
Skin Sensitization – Category 1
Carcinogenicity – Category 1A
Toxic to Reproduction (Fertility) – Category 1B
Toxic to Reproduction (Unborn Child) – Category 1B
Specific Target Organ Toxicity (Repeated Exposure) – Category 1 (lungs/respiratory tract)
Aquatic Hazard (Acute) – Category 1
Aquatic Hazard (Long Term) – Category 1

2.2a Signal word Danger
2.2b Hazard Statements
Causes severe skin burns and eye damage
May cause an allergic skin reaction
May cause cancer
May damage fertility or the unborn child
Causes damage to organs through prolonged or repeated exposure (lungs, respiratory tract)
Very toxic to aquatic life with long lasting effects.

2.2c Pictograms

2.2d Precautionary statements
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid contact with the skin and eyes
Avoid breathing fumes
Avoid exposure during pregnancy.
Wear protective gloves, eye protection and clothing.
Do not eat, drink or smoke when using this product.

If on skin (or hair): Remove material immediately! Cured material can be removed only mechanically with damage to skin. Immediately wash all contaminated body and clothing thoroughly.

If in eyes: Immediately rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing and seek medical immediate attention.
If inhaled: remover person to fresh air and keep comfortable for breathing.
If swallowed: immediately call a poison control center or physician. Rinse mouth. Do NOT induce vomiting.
If you experience a burn, rash or skin irritation: immediately seek medical attention.

Immediately seek medical attention if symptoms are significant or persist.

Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/containers in accordance with all regulations.
2.3 Additional Information
Carcinogenicity & Teratogenicity
This product contains titanium dioxide which IARC has classified as a Group 2B carcinogen (possibly carcinogenic to humans). Evidence is based on sufficient animal testing as a result of long-term inhalation at high concentrations of respirable amounts of titanium dioxide. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. Note: sanding of this product will create a possible dust hazard.

This product contains crystalline silica (quarts sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. Note: sanding of this product will create a possible silica dust hazard.

This product contains 2-(2-Aminoethylamino) ethanol which is not listed by the State of California for reproductive toxicity. The US National Institute of Health identifies this constituent as it may damage fertility or the unborn child.

2.3a HNOC – Hazards not otherwise classified: Not applicable

2.3b Unknown Acute Toxicity: None known

### SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

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<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS No.</th>
<th>% by Weight*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz Silica Sand (Crystalline Silica)</td>
<td>14808-60-7</td>
<td>40 – 70</td>
</tr>
<tr>
<td>4-Nonylphenol, Branched</td>
<td>84852-15-3</td>
<td>10 – 30</td>
</tr>
<tr>
<td>2-Piperazin-1-Ylethylamine</td>
<td>104-31-8</td>
<td>10 – 30</td>
</tr>
<tr>
<td>2,4,6-tris(Dimethylaminomethyl) phenol</td>
<td>90-72-2</td>
<td>3 – 7</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-8</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Diaminopolypropylene glycol</td>
<td>9046-10-0</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Bis[(Dimethylamino)methyl]phenol</td>
<td>71074-89-0</td>
<td>1 – 5</td>
</tr>
<tr>
<td>2-(2-Aminoethylamino) ethanol</td>
<td>111-41-1</td>
<td>0.1 – 1</td>
</tr>
</tbody>
</table>

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.

*The concentrations ranges are provided due to batch-to-batch variability.
SECTION IV – FIRST AID MEASURES

4.1 Description of the first-aid measures

General information:

**Inhalation:** Move to fresh air; give oxygen if breathing is difficult. Call a physician if symptoms persist.

**Eyes:** Immediately rinse cautiously with water for several minutes. Remove contact lenses if present, and easy to do. Continue rinsing and seek immediate medical attention.

**Skin:** Remove material immediately! Cured material can be removed only mechanically with damage to skin. Immediately wash contaminated body and clothing thoroughly. Wash with mild soap and water. Get medical attention if skin irritation or dermatitis persists.

**Ingestion:** Give plenty of water. DO NOT induce vomiting. Call a physician immediately.

**Other:** Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure. If sensitization occurs, future contact with the material should be avoided.

4.2 Most important symptoms/effects, acute and delayed

**Inhalation:** Causes damage to organs through prolonged or repeated exposure (lungs, respiratory tract)

**Skin contact:** Causes severe burns. May cause an allergic skin reaction.

**Eye Contact:** Causes serious eye damage.

**Ingestion:** May damage fertility or the unborn child.

4.3 Indication of immediate medical attention and special treatment needed:
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION V – FIRE FIGHTING MEASURES

5.1 Flammability of the Product: Combustible

5.2 Suitable extinguishing agents: Firefighters must wear self-contained breathing apparatus and full protective clothing to prevent contact with toxic and/or irritating fumes.

5.3 Special hazards arising from the substance or mixture: This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged into any waterway, sewer or drain.

5.3a Products of Combustion: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, metal oxide/oxides.

5.3b Explosion Hazards in Presence of Various Substances: None known

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6.1 Personal precautions, protective equipment and emergency procedures: Wear personal protective equipment (See section VIII). Keep unprotected persons away.
6.2 Methods and material for containment and cleaning up:
Cover spills with sawdust, vermiculite, or other absorbent material to minimize spreading of the material before collecting. Do not allow to enter sewers/ surface or ground water. Dispose of unwanted materials and containers properly in accordance with all regulations.

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7.1 Handling
Precautions for safe handling: Avoid contact with eyes, skin and clothing. Avoid inhalation of vapors. Use with adequate ventilation. Use appropriate personal protection equipment (Section 8). Wash thoroughly after handling.

7.2 Storage
Requirements to be met by storerooms and receptacles: Store in a cool dry place away from direct sunlight. Keep from freezing. Recommended storage temperature range in between 4 °C and 32 °C (40ºF and 90º F).
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep out of the reach of children.

SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION

8.1 Components with limit values that require monitoring at the workplace:

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<th>PEL (OSHA) mg/M³</th>
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<tr>
<td>Quartz Silica Sand (Crystalline Silica)</td>
<td>14808-60-7</td>
<td>10/(%SiO2)</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-8</td>
<td>10</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Use local and general exhaust ventilation to maintain airborne concentrations below TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. Avoid exposure during pregnancy. Persons with a history of skin sensitization problems should not be exposed to this product for inhalation or skin contact. Once sensitized to this product, a severe allergic reaction may occur when subsequently exposed to even very low levels.

8.3 General protective and hygienic measures
Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
8.3a Personal protective equipment

Protection of hands:
Wear gloves of adequate length to offer appropriate skin protection. Neoprene, nitrile rubber, or PVC gloves have been found to offer adequate protection for incidental contact.

Eye protection:
Wear approved eye protection properly fitted dust- or splash-proof chemical safety glasses.

Respiratory Protection:
An S-Series half mask respirator with organic vapor cartridges (black) will reduce exposure, especially in poorly ventilated areas, when use is frequent, or when permissible exposure limits may be exceeded.

SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Black Paste</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight Odor</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity (H2O=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC Content</td>
<td>VOC&lt; 20 g/L per EPA Method 24; Meets VOC requirements in all locations</td>
</tr>
</tbody>
</table>

SECTION X – STABILITY AND REACTIVITY

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

10.2 Chemical stability
Stable under normal storage conditions.

10.3 Possibility of hazardous reaction
No dangerous reaction known under conditions of normal use.

10.4 Thermal decomposition / conditions to be avoided
No specific data.

10.5 Incompatible materials Oxidizing agents

10.6 Hazardous Decomposition or By-products Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SECTION XI – TOXICOLOGICAL INFORMATION

11. Toxicological Information (Part B)

Acute Oral Toxicity:

4-Nonylphenol, Branched  \( \text{LD}_{50} \) Oral – Rat – 1300 mg/kg

2,4,6-tris(Dimethylaminomethyl) phenol:  \( \text{LD}_{50} \) Dermal – Rat – 1280 mg/kg

Benzyl alcohol:  \( \text{LD}_{50} \) Dermal – Rabbit – 2000 mg/kg

2-(2-Aminoethylamino)Ethanol  \( \text{LD}_{50} \) Oral – Rat – 1230 mg/kg

Irritation/Corrosion:

4-Nonylphenol, Branched  Eyes – Severe irritant – Rabbit – 100 mg

Skin – Severe irritant – Rabbit – 500 mg (24 h)

2,4,6-tris(Dimethylaminomethyl) phenol:  Eyes – Severe irritant – Rabbit – 50 µg (24 h)

Skin – Mild irritant – Rat – 0.025 ml

Skin – Severe irritant – Rat – 0.25 ml

Skin – Severe irritant – Rabbit – 2 mg (24 h)

2-Piperazin-1-Ylethamine  Eyes – Moderate irritant – Rabbit – 20 mg (24 h)

Skin – Severe irritant – Rabbit – 5 mg (24 h)

2-(2-Aminoethylamino)Ethanol  Eyes – Severe irritant – Rabbit – 50 mg

Skin – Mild irritant – Rabbit – 445 mg

Respiratory Irritation: Inhalation of vapors or mists may cause irritation to the respiratory system. The product has not been tested. The statement has been derived from the properties of the individual components.

Sensitization: May cause allergic skin reaction and irritation to the respiratory system. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity Classification:

Quartz Silica Sand (Crystalline Silica) - See Part A Section 2.

IARC Group 1: Known human carcinogen based on human evidence.

NTP (National Toxicology Program) has classified Crystalline Silica as a known human carcinogen.

Potential acute health effects

Eye Contact  Causes serious eye damage.

Inhalation  None known

Skin Contact  Causes severe burns. May cause an allergic skin reaction.
Potential chronic health effects

**General:** Causes damage to lungs/respiratory tract 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.

**Teratogenicity:** May damage the unborn child.

**Fertility Effects:** May damage fertility.

### SECTION XII – ECOLOGICAL INFORMATION

#### Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, Branched</td>
<td>Acute EC50 0.03 mg/L Marine water</td>
<td>Algae - Skeletonema costatum</td>
<td>72 hours</td>
</tr>
<tr>
<td>4-Nonylphenol, Branched</td>
<td>Acute EC50 0.027 mg/L Marine water</td>
<td>Algae - Skeletonema costatum</td>
<td>96 hours</td>
</tr>
<tr>
<td>4-Nonylphenol, Branched</td>
<td>Acute EC50 137 μg/L Marine water</td>
<td>Crustaceans - Eohaustorius estuarius –Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td>4-Nonylphenol, Branched</td>
<td>Chronic EC10 0.012 mg/L Marine water</td>
<td>Fish - Pleuronectes americanus - Larvae</td>
<td>96 hours</td>
</tr>
<tr>
<td>4-Nonylphenol, Branched</td>
<td>Chronic NOEC 5 μg/L Fresh water</td>
<td>Algae - Skeletonema costatum</td>
<td>96 hours</td>
</tr>
<tr>
<td>4-Nonylphenol, Branched</td>
<td>Chronic NOEC 7.4 μg/L Fresh water</td>
<td>Crustaceans - Gammarus fossarum - Adult</td>
<td>21 days</td>
</tr>
<tr>
<td>2-Piperazin-1-Ylethylamine</td>
<td>Acute LC50 2190000 μg/L Fresh water</td>
<td>Fish - Pimephales promelas - Embryo</td>
<td>33 days</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>Acute LC50 4600000 μg/L Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>Fish - Pimephales promelas – Juvenile</td>
<td>(Fledgling, Hatchling, Weanling)</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

#### Bioaccumulative potential

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LogPow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, Branched</td>
<td>5.4</td>
<td>740</td>
<td>high</td>
</tr>
<tr>
<td>2-Piperazin-1-Ylethylamine</td>
<td>-1.48</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>2,4,6-tris(Dimethylaminomethyl) phenol</td>
<td>0.219</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>0.87</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Poly[oxy(Methyl-1,2-Ethanediyl)], α-(2-Aminomethyl)ethyl)-(ω-(2-Aminomethyleneoxy)-</td>
<td>1.34</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>2-(2-Aminoethylamino)Ethanol</td>
<td>-1.46</td>
<td>&lt;0.2</td>
<td>low</td>
</tr>
</tbody>
</table>

#### Persistence and degradability: Not available.

#### Mobility: Not available:

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

### SECTION XIII – DISPOSAL CONSIDERATIONS

#### 13.1 Waste Disposal Method

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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. If the material as supplied becomes a waste, dispose in accordance with federal, state and local regulations.

### SECTION XIV – TRANSPORT INFORMATION

#### DOT Classification

SDS F3B QUIKRETE Companies, LLC 1/7/2019
UN-Number: UN2735
UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (2-Piperazin-1-Ylethamine, 4-Nonylphenol, Branched)
Transport Hazard Class(es): 8
Packing Group (if applicable): III

14.1 Environmental hazards:
Not Available

14.2 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code
Not available

14.3 Special precautions for user
Do not handle until all safety precautions have been read and understood.

SECTION XV – OTHER REGULATORY INFORMATION

Federal Regulations:
TSCA
5(a)2: 4-Nonylphenol, Branched
8(a) PAIR: 4-Nonylphenol, Branched
8(b): All components are listed or exempt.
12(b) one Time Export: 4-Nonylphenol, Branched

SARA Title 311/312
Skin Corrosion– Category 1B
Eye Damage – Category 1
Skin Sensitization – Category 1
Carcinogenicity – Category 1A
Toxic to Reproduction (Fertility) – Category 1B
Toxic to Reproduction (Unborn Child) – Category 1B
Specific Target Organ Toxicity (Repeated Exposure) – Category 1 (lungs/respiratory tract)

Sara Title 313
Form R Reporting Requirements: 4-Nonylphenol, Branched (CAS 84852-15-3)
Supplier Notification: 4-Nonylphenol, Branched (CAS 84852-15-3)

State Regulations:
State RTK
NJ, MA, PA

Chemical Name
2-Piperazin-1-Ylethamine
Quartz Silica Sand (Crystalline Silica)
Benzyl alcohol

SDS F3B QUIKRETE Companies, LLC 1/7/2019
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State Right to Know Laws
California Prop. 65 Components

⚠️ WARNING: This product can expose you to chemicals including crystalline silica which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

This product contains 2-(2-Aminoethylamino) ethanol which is not listed by the State of California for reproductive toxicity. The US National Institute of Health identifies this constituent as it may damage fertility or the unborn child.

SECTION XVI – OTHER INFORMATION
Last Updated: January 7, 2019

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

Prepared by
The QUIKRETE Companies, LLC

End of SDS