SAFETY DATA SHEET

Section 1. Identification

Manufacturer/Supplier
Starbrite® Inc.
4041 SW 47th Avenue
Fort Lauderdale, FL 33314
(954)587-6280
www.starbrite.com

Emergency telephone number
US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

Product name
EPOXY PUTTY STICK
Code
9031XX

Specific uses
Sealants and adhesives

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 SENSITIZATION - Category 1

GHS label elements

Hazard pictograms

Signal word
Warning!

Hazard statements
May cause an allergic skin reaction.

Precautionary statements

Prevention
Wear protective gloves. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace.

Response
IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage
Not applicable.

Disposal
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

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
</table>

### Ingredient name

<table>
<thead>
<tr>
<th>Description</th>
<th>% by weight</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin); epoxy resin</td>
<td>5 - 10</td>
<td>25068-38-6</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>5 - 10</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>crystalline silica non-respirable</td>
<td>0.1 - 1</td>
<td>14808-60-7</td>
</tr>
</tbody>
</table>

### Canada

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc , not containing asbestiform fibres</td>
<td>14807-96-6</td>
<td>30 - 60</td>
</tr>
<tr>
<td>glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>10 - 30</td>
</tr>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin); epoxy resin</td>
<td>25068-38-6</td>
<td>5 - 10</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>13463-67-7</td>
<td>5 - 10</td>
</tr>
<tr>
<td>crystalline silica non-respirable</td>
<td>14808-60-7</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>3,6-diazaoctanethylenediamin</td>
<td>112-24-3</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

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

Section 4. First aid measures

**Description of necessary first aid measures**

**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 adverse health effects persist or are severe. 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**
Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**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 10 minutes. Get medical attention if irritation occurs.

**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 if adverse health effects persist or are severe. 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**

**Inhalation**
Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact**
May cause an allergic skin reaction.

**Eye contact**
No known significant effects or critical hazards.

**Ingestion**
No known significant effects or critical hazards.
Section 4. First aid measures

Over-exposure signs/symptoms

Inhalation  No specific data.

Skin contact  Adverse symptoms may include the following:
  - irritation
  - redness

Eye contact  No specific data.

Ingestion  No specific data.

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.

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  No specific fire or explosion hazard.

National Fire Protection Association (U.S.A.)

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability/Reactivity</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Hazardous thermal decomposition products  Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - nitrogen oxides
  - sulfur oxides
  - halogenated compounds
  - 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.
Section 6. Accidental release measures

For emergency responders
If specialised 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).

Methods and materials for containment and cleaning up

Small spill
Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. 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

Conditions for safe storage, including any incompatibilities
Do not store above the following temperature: 35°C (95°F). 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. 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.

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. Do not get in eyes or on skin or clothing. Do not ingest. 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS #</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>13463-67-7</td>
<td>ACGIH TLV (United States, 3/2012). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL (United States, 6/2010). TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td>crystalline silica non-respirable</td>
<td>14808-60-7</td>
<td>OSHA PEL Z3 (United States, 9/2005). Notes: 250/(%SiO2+5) TWA: 250 MPPCF / (%SiO2+5) 8 hours. Form: Respirable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL Z3 (United States, 9/2005). Notes: 10/(SiO2+2) TWA: 10 MG/M3 / (%SiO2+2) 8 hours. Form: Respirable</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision 12 February 2014  Date of previous issue No previous validation.  Version 1 4/12
### Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>List name</th>
<th>TWA (8 hours)</th>
<th>STEL (15 mins)</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,6-diazaoctanethylenediamin</td>
<td>ON 1/2013</td>
<td>0.5 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>US AIIHA 10/2011</td>
<td>0.5 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>US ACGIH 3/2012</td>
<td>10 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>AB 4/2009</td>
<td>10 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>BC 4/2012</td>
<td>3 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>ON 1/2013</td>
<td>10 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>QC 12/2012</td>
<td>10 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>crystalline silica non-respirable</td>
<td>US ACGIH 3/2012</td>
<td>0.025 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>BC 4/2012</td>
<td>0.025 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>ON 1/2013</td>
<td>0.1 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>QC 12/2012</td>
<td>0.1 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Talc, not containing asbestiform fibres</td>
<td>AB 4/2009</td>
<td>2 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>BC 4/2012</td>
<td>2 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>ON 1/2013</td>
<td>2 ppm</td>
<td>0.1 f/cc</td>
<td>-</td>
</tr>
<tr>
<td>glass, oxide, chemicals</td>
<td>QC 12/2012</td>
<td>3 ppm</td>
<td>2 f/cc</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>US ACGIH 3/2012</td>
<td>5 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>US ACGIH 3/2012</td>
<td>-</td>
<td>1 f/cc</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>AB 4/2009</td>
<td>5 ppm</td>
<td>1 f/cc</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>BC 4/2012</td>
<td>5 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>ON 1/2013</td>
<td>10 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>QC 12/2012</td>
<td>-</td>
<td>1 f/cc</td>
<td>-</td>
</tr>
</tbody>
</table>

**Form:**
- [a] Respirable dust
- [b] Total dust
- [c] Total dust
- [d] Respirable fraction
- [e] Respirable
- [f] Respirable fraction

**Notes:**
- [q] TWA: 30 mg/m³ (8 hours). Form: Total dust.
- [p] TWA: 10 mg/m³ (8 hours). Form: Respirable dust.
- [m] NIOSH PEL Z3 (United States, 9/2005). Notes: 30/(%SiO2+2) 8 hours. Form: Total dust.
- [l] TWA: 0.05 mg/m³ 10 hours. Form: Respirable dust.
- [k] TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction.
- [j] The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica.
- [i] Inhalable fraction.
- [h] Respirable fibers: length greater than 5 μm; aspect ratio equal to or greater than 3:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective) phase contrast illumination.
- [g] Respirable dust.
- [f] Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size–selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 μm at 50 per cent collection efficiency.
- [e] Respirable.
- [d] Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size–selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 μm at 50 per cent collection efficiency.
- [c] Respirable fibres: length > 5 μm; aspect ratio ≥3:1, as determined by the membrane filter method at 400-450 times magnification (4-mm objective), using phase-contrast illumination.

**List name**
- [a] Res. dust
- [b] Tot. dust
- [c] Tot. dust
- [d] Resp. fraction
- [e] Resp. dust
- [f] Resp. fraction

**Notations**
- [a] Res. dust
- [b] Tot. dust
- [c] Tot. dust
- [d] Resp. fraction
- [e] Resp. dust
- [f] Resp. fraction

**TWA (8 hours)**
- ppm
- mg/m³

**STEL (15 mins)**
- ppm
- mg/m³

**Ceiling**
- ppm
- mg/m³

**Other**
- ppm
- mg/m³
Section 8. Exposure controls/personal protection

**Appropriate engineering controls**

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure 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. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**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.

**Respiratory protection**

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**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.

**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: safety glasses with side-shields.

Section 9. Physical and chemical properties

**Physical state**

Solid.

**Color**

Green-White.

**Odor**

Sulfurous. Pungent.

**Odor threshold**

Not available.

**pH**

Not available.

**Melting point**

Not available.

**Boiling point**

Decomposition temperature: >200°C (>392°F)

**Flash point**

Closed cup: >93.3°C (>199.9°F) [Setaflash.] [Product does not sustain combustion.]

**Evaporation rate**

Not available.

**Flammability (solid, gas)**

Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits  Not available.
Vapor pressure  Not available.
Vapor density  Not available.
Relative density  1.972
Solubility  Not available.
Solubility in water  Not available.
Auto-ignition temperature  Not available.
Decomposition temperature  >200°C (>392°F)
Viscosity  Not available.

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  No specific data.

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  No specific data.

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin); epoxy resin</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams 24 hours 500 microliters 24 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>2 milligrams 72 hours 300 Micrograms Intermittent</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Human</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>Eyes - Mild irritant</td>
<td>兔</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>兔</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>兔</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>人</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization  No specific data.

Mutagenicity  No specific data.

Carcinogenicity  No specific data.
Section 11. Toxicological information

### Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
<tr>
<td>crystalline silica non-respirable</td>
<td>-</td>
<td>1</td>
<td>Known to be a human carcinogen.</td>
</tr>
</tbody>
</table>

### Reproductive toxicity

No specific data.

### Teratogenicity

No specific data.

### Specific target organ toxicity (single exposure)

No specific data.

### Specific target organ toxicity (repeated exposure)

No specific data.

### Aspiration hazard

No specific data.

### Information on the likely routes of exposure

Not available.

### Potential acute health effects

**Eye contact**

No known significant effects or critical hazards.

**Inhalation**

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact**

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**

No specific data.

**Inhalation**

No specific data.

**Skin contact**

Adverse symptoms may include the following:
- irritation
- redness

**Ingestion**

No specific data.

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

#### Short term exposure

**Potential immediate effects**

Not available.

**Potential delayed effects**

Not available.

#### Long term exposure

**Potential immediate effects**

Not available.

**Potential delayed effects**

Not available.

### Potential chronic health effects

No specific data.

**General**

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
**Section 11. Toxicological information**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Fertility effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Numerical measures of toxicity**

**Acute toxicity estimates**
No specific data.

**Section 12. 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>titanium dioxide</td>
<td>Acute LC50 1000000 µg/l Marine water</td>
<td>Fish - Fundulus heteroclitus</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
No specific data.

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogPow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin); epoxy resin titanium dioxide</td>
<td>2.64 to 3.78</td>
<td>31</td>
<td>low</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>352</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

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

**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 at all times 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 emptied 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.

**RCRA classification**
Not available.
Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>Mexico Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Additional information</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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.

Section 15. Regulatory information

United States

U.S. Federal regulations

TSCA 8(a) PAIR: Siloxanes and Silicones, di-Me, reaction products with silica
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.

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

SARA 302/304

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>EHS</th>
<th>SARA 302 TPQ (lbs)</th>
<th>SARA 302 TPQ (gallons)</th>
<th>SARA 304 RQ (lbs)</th>
<th>SARA 304 RQ (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>phenol</td>
<td>0.1 - 1</td>
<td>Yes</td>
<td>500 / 10000</td>
<td>-</td>
<td>1000</td>
<td>-</td>
</tr>
</tbody>
</table>

SARA 304 RQ 272182.9 lbs / 123571 kg
SARA 311/312

Classification Immediate (acute) health hazard

Composition/information on ingredients

Date of issue/Date of revision 12 February 2014

Date of previous issue No previous validation.

Version 1

10/12
Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin); epoxy resin titanium dioxide crystalline silica non-respirable</td>
<td>5 - 10</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>5 - 10</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
<tr>
<td></td>
<td>0.1 - 1</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

State regulations

Massachusetts

The following components are listed: MINERAL WOOL FIBER; SOAPSTONE; TITANIUM DIOXIDE

New York

None of the components are listed.

New Jersey

The following components are listed: SILICA, QUARTZ; QUARTZ (SiO2); SOAPSTONE; TITANIUM DIOXIDE; TITANIUM OXIDE (TiO2)

Pennsylvania

The following components are listed: QUARTZ (SiO2); SOAPSTONE DUST; TITANIUM OXIDE (TiO2)

Minnesota Hazardous Substances

None of the components are listed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc , not containing asbestiform fibres titanium dioxide crystalline silica non-respirable methanol</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

Canada

WHMIS (Canada)

Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI

None of the components are listed.

CEPA Toxic substances

None of the components are listed.

Canada inventory

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists

Australia inventory (AICS): All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: Not determined.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan inventory (CSNN): Not determined.

Substances of very high concern

None of the components are listed.
Section 16. Other information

Key to abbreviations

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
UN = United Nations

References
Not available.

Indicates information that has changed from previously issued version.

Notice to reader

NON-WARRANTY: The information presented in this publication is based upon the research and experience of Star brite. No representation or warranty is made, however, concerning the accuracy or completeness of the information presented in this publication. Star brite makes no warranty or representation of any kind, express or implied, including without limitation any warranty of merchantability or fitness for any particular purpose, and no warranty or representation shall be implied by law or otherwise. Any products sold by Star brite are not warranted as suitable for any particular purpose to the buyer. The suitability of any products for any purpose particular to the buyer is for the buyer to determine. Star brite assumes no responsibility for the selection of products suitable to the particular purposes of any particular buyer. Star brite shall in no event be liable for any special, incidental, or consequential damages.