# SAFETY DATA SHEET
234 Chemical Resistant Tile Grout  Part A

## 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Code:</th>
<th>234A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name:</td>
<td>234 Chemical Resistant Tile Grout  Part A</td>
</tr>
<tr>
<td>Trade Name:</td>
<td>234 Chemical Resistant Tile Grout  Part A</td>
</tr>
</tbody>
</table>

### Manufacturer Information

- **Company Name:** Epoxy Systems, Inc.  
  20774 W Pennsylvania Ave.  
  Dunnellon, Florida 34421

- **Phone Number:** 1-352-489-1666

- **Emergency Contact:** PERS(USA)  (800) 633-8253

- **Alternate Emergency Contact:** PERS (International)  +1 (801) 629-0667

### Intended Use:

- Industrial floor coatings.

## 2. Hazards Identification

<table>
<thead>
<tr>
<th>GHS Classification</th>
<th>Placard Key word</th>
<th>GHS hazard phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corrosion/Irritation, Category 2</td>
<td>Exclamation point Warning</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>Serious Eye Damage/Eye Irritation, Category 2B</td>
<td>none Warning</td>
<td>Causes eye irritation</td>
</tr>
<tr>
<td>Skin Sensitization, Category 1B</td>
<td>Exclamation point Warning</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>Aquatic Toxicity (Chronic), Category 2</td>
<td>Pollution</td>
<td>Toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

### GHS Hazard Phrases

- H315 - Causes skin irritation.
- H320 - Causes eye irritation.
- H335 - May cause respiratory irritation.
- H303 - May be harmful if swallowed.
- H317 - May cause an allergic skin reaction.
- H411 - Toxic to aquatic life with long lasting effects.

### GHS Precaution Phrases

- P262 - Do not get in eyes, on skin, or on clothing.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P261 - Avoid breathing dust/mist/vapors/spray.
- P362+364 - Take off contaminated clothing and wash it before reuse.
- P273 - Avoid release to the environment.

### GHS Response Phrases

- P302+352 - IF ON SKIN: Wash with plenty of soap and water. P362 - Take off contaminated clothing. P333+313 - If skin irritation or rash occurs, seek medical advice/attention.
- P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+313 - If eye irritation persists, get medical advice/attention.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P314 - Get medical attention/advice if you feel unwell.
P391 - Collect spillage.

GHS Storage and Disposal Phrases
P501 - Dispose of contents/container to local, state, and federal authority requirements.

Potential Health Effects (Acute and Chronic)
Causes skin and eye irritation. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

Inhalation
May cause respiratory irritation.

Skin Contact
Causes skin irritation. May cause an allergic skin reaction.

Eye Contact
May cause eye irritation.

Ingestion
May be harmful if swallowed.

Recommended Exposure Limits
Not established.

Medical Conditions Generally Aggravated By Exposure
May cause rash on skin, and redness in eyes. May cause coughing by inhalation of a mist or spray.

OSHA Regulatory Status:
This material is classified as hazardous under OSHA regulations.

### 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bisphenol-a based epoxy resin</td>
<td>25068-38-6</td>
<td>40 - 55 %</td>
</tr>
<tr>
<td>2. Phenol-Formaldehyde Polymer</td>
<td>28064-14-4</td>
<td>30 - 45 %</td>
</tr>
<tr>
<td>3. Oxirane, [(2-Methylphenoxy)methyl]-</td>
<td>2210-79-9</td>
<td>1.0 - 10 %</td>
</tr>
<tr>
<td>4. (++)-Propylene carbonate, Anhydrous</td>
<td>108-32-7</td>
<td>1.0 - 10 %</td>
</tr>
<tr>
<td>5. 2-Propanol, 1-Methoxy-</td>
<td>107-98-2</td>
<td>1.0 - 10 %</td>
</tr>
<tr>
<td>6. Iron oxide (Fe2O3)</td>
<td>1309-37-1</td>
<td>0 - 10 %</td>
</tr>
<tr>
<td>7. C.I. Pigment Yellow 42</td>
<td>51274-00-1</td>
<td>0 - 10 %</td>
</tr>
<tr>
<td>8. Carbon black</td>
<td>1333-86-4</td>
<td>0 - 10 %</td>
</tr>
<tr>
<td>9. Titanium dioxide</td>
<td>13463-67-7</td>
<td>0 - 10 %</td>
</tr>
</tbody>
</table>

### 4. First Aid Measures

Emergency and First Aid Procedures

In Case of Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If experiencing respiratory symptoms: Get medical attention immediately.

In Case of Skin Contact
In case of contact, immediately wash skin with soap and copious amounts of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.

In Case of Eye Contact
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

In Case of Ingestion
If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. Do not induce vomiting. For further assistance, contact your local Poison Control Center.

Signs and Symptoms Of Exposure
Moderate irritation effect.
5. Fire Fighting Measures

Flash Pt: > 200.00 F  Method Used: Pensky-Marten Closed Cup
Explosive Limits: LEL: NE  UEL: NE
Autoignition Pt: No data available.

Fire Fighting Instructions
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Flammable Properties and Hazards
Product is not considered a fire hazard. Closed containers may rupture (due to build up in pressure) when exposed to extreme heat.

Hazardous Combustion Products
In a fire, product may produce the following: Carbon monoxide, Carbon dioxide, Phenolics.

Suitable Extinguishing Media
Dry chemical, CO2, water spray or regular foam.

Unsuitable Extinguishing Media
Do not use a direct water stream, which may spread fire.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled
PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL.
Absorb with sand or vermiculite and place in closed containers for disposal. Ventilate the area.

Protective Precautions, Protective Equipment and Emergency Procedures
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Where splashing is possible, full chemically resistant protective clothing, and boots are required.

Environmental Precautions
Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and Storage

Hazard Label Information:
Avoid contact with skin and eyes. Do not get on skin and clothing. Avoid inhalation of vapor or mist.
Store in a closed container.

Precautions To Be Taken in Handling
Provide adequate ventilation. Do not breathe vapor. Do not get in eyes, on skin or on clothing.

Precautions To Be Taken in Storing
Keep container tightly closed in a dry and well-ventilated place.

Other Precautions
Wash thoroughly after handling.

8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bisphenol-a based epoxy resin</td>
<td>25068-38-6</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>2. Phenol-Formaldehyde Polymer</td>
<td>28064-14-4</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>3. Oxirane, [(2-Methylphenoxy)methyl]-</td>
<td>2210-79-9</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>5. 2-Propanol, 1-Methoxy-</td>
<td>107-98-2</td>
<td>No data.</td>
<td>TLV: 100 ppm</td>
<td>No data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STEL: 150 ppm</td>
<td></td>
</tr>
<tr>
<td>6. Iron oxide (Fe2O3)</td>
<td>1309-37-1</td>
<td>PEL: 10 mg/m3</td>
<td>TLV: 5 mg/m3 (dust &amp; fume)</td>
<td>No data.</td>
</tr>
<tr>
<td>7. C.I. Pigment Yellow 42</td>
<td>51274-00-1</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>
Hazardous Components (Chemical Name) | CAS # | OSHA PEL | ACGIH TWA | Other Limits |
--- | --- | --- | --- | --- |
8. Carbon black | 1333-86-4 | PEL: 3.5 mg/m³ | TLV: 3.5 mg/m³ | No data. |
9. Titanium dioxide | 13463-67-7 | PEL: 15 (dust) mg/m³ | TLV: 10 mg/m³ | No data. |

**Protective Equipment Summary - Hazard Label Information:**
- Neoprene gloves
- Safety glasses, or goggles
- Impervious clothing
- Chemical resistant boots

**Respiratory Equipment (Specify Type):**
- Normally when good engineering controls are used, no respiratory protection is needed. However, if cured product is abraded by sanding or grinding use a NIOSH approved air-purifying respirator. Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. A 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.

**Eye Protection**
- Safety glasses, or goggles.

**Protective Gloves**
- Nitrile rubber and Neoprene are recommended.

**Other Protective Clothing**
- Where splashing is possible, full chemically resistant protective clothing, safety glasses or face shield and boots are required.

**Engineering Controls (Ventilation etc.)**
- Good general ventilation should be sufficient to control airborne levels. Safety shower and eye bath.

**Work/Hygienic/Maintenance Practices**
- Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

**Environmental Exposure Controls**
- Avoid runoff into storm sewers and ditches which lead to waterways.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical States</th>
<th>Gas</th>
<th>Liquid</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point</td>
<td>NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling Point</td>
<td>NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autoignition Pt</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Pt</td>
<td>&gt; 200.00 F</td>
<td>Method Used: Pensky-Marten Closed Cup</td>
<td></td>
</tr>
<tr>
<td>Explosive Limits</td>
<td>LEL: NE</td>
<td>UEL: NE</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity (Water = 1)</td>
<td>~ 1.167</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>~ 9.73 LB/GL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg)</td>
<td>NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1)</td>
<td>NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>NP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility Notes</td>
<td>Practically insoluble.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>0.0 % by volume.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Stability: Unstable [ ] Stable [ X ]

Reactivity
Avoid: acids, alkalis, oxidizing agents.

Conditions To Avoid - Instability
Extreme temperatures.

Incompatibility - Materials To Avoid
Avoid strong acids, bases, and oxidizing agents. Avoid contact with amines.

Hazardous Decomposition Or Byproducts
Thermal decomposition may produce smoke, carbon monoxide, carbon dioxide, and phenolics.

Possibility of Hazardous Polymerization:
Will occur [ ] Will not occur [ X ]

11. Toxicological Information

Toxicological Information
Skin sensitization.

Chronic Toxicological Effects
May cause sensitization by skin contact.

Irritation or Corrosion
Skin Irritation. Irritating to eyes.

Symptoms related to Toxicological Characteristics
May cause redness, rash on skin. May cause slight skin irritation or skin sensitization. May be slightly irritating to eyes and respiratory system.

Hazardous Components (Chemical Name)  CAS #  NTP  IARC  ACGIH  OSHA
1. Bisphenol-a based epoxy resin  25068-38-6  n.a.  n.a.  n.a.  n.a.
2. Phenol-Formaldehyde Polymer  28064-14-4  n.a.  n.a.  n.a.  n.a.
3. Oxirane, [(2-Methylphenoxy)methyl]-  2210-79-9  n.a.  n.a.  n.a.  n.a.
4. (+)-Propylene carbonate, Anhydrous  108-32-7  n.a.  n.a.  n.a.  n.a.
5. 2-Propanol, 1-Methoxy-  107-98-2  n.a.  n.a.  n.a.  n.a.
6. Iron oxide (Fe2O3)  1309-37-1  n.a.  3  A4  n.a.
7. C.I. Pigment Yellow 42  51274-00-1  n.a.  n.a.  n.a.  n.a.

12. Ecological Information

General Ecological Information
Avoid release to the environment. May be hazardous to the environment if released in large quantities.

Results of PBT and vPvB assessment
No data available.
13. Disposal Considerations

**Waste Disposal Method**

Incinerate or dispose of unused material, residues and containers in a licensed facility in accordance with all applicable local, state and federal regulations. Do not discharge substance/product into sewage system.

14. Transport Information

**LAND TRANSPORT (US DOT)**

- **DOT Proper Shipping Name**
  - (Non-Bulk)
    - Not Regulated.
  - (Bulk)
    - Environmentally hazardous substance, liquid, n.o.s. (EPOXY NOVOLAC RESIN)

- **DOT Hazard Class:**
  - 9
- **DOT Hazard Label:**
  - CLASS 9
- **UN/NA Number:**
  - UN3082
- **Packing Group:**
  - III

**AIR TRANSPORT (ICAO/IATA)**

- **ICAO/IATA Shipping Name**
  - (Non-Bulk)
    - Not Regulated.
  - (Bulk)
    - Environmentally hazardous substance, liquid, n.o.s. (EPOXY NOVOLAC RESIN) MARINE POLLUTANT.

- **UN Number:**
  - 3082
- **Hazard Class:**
  - 9 - CLASS 9
- **Packing Group:**
  - III

**MARINE TRANSPORT (IMDG/IMO)**

- **IMDG/IMO Shipping Name**
  - Environmentally hazardous substance, liquid, n.o.s. (EPOXY NOVOLAC RESIN) MARINE POLLUTANT.

- **UN Number:**
  - 3082
- **Hazard Class:**
  - 9 - CLASS 9
### 15. Regulatory Information

#### US EPA SARA Title III

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>Sec.302 (EHS)</th>
<th>Sec.304 RQ</th>
<th>Sec.313 (TRI)</th>
<th>Sec.110</th>
</tr>
</thead>
<tbody>
<tr>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>8. Carbon black</td>
<td>1333-86-4</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>9. Titanium dioxide</td>
<td>13463-67-7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
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#### Regulatory Information

SARA Section 311/312: Acute Health Hazard.

#### 16. Other Information

**CA=CIRCA NA=NOT AVAILABLE NE=NOT ESTABLISHED NR=NOT REGULATED NP= NOT APPLICABLE PR=PROPRIETARY TS=TRADE SECRET ?=UNKNOWN.**

**Company Policy or Disclaimer**

The information contained in this MSDS is taken from sources believed to be accurate as of the date hereof; however, Epoxy Systems, Inc. makes no expressed or implied warranty in respect to the accuracy of the information or the suitability of the recommendations, and assumes no liabilities to any user thereof.

**Revision Date:** 08/30/2015