1. Product and Company Identification

Product Code: Epoxy. Com #672A
Product Name: Trade Name: Manufacturer Information
Company Name: Epoxy Systems, Inc.
20774 W Pennsylvania Ave
Dunnellon, FL 34431
Phone Number: +1 (352) 489-1666
Emergency Contact: PERS (USA) (800) 633-8253
Alternate Emergency Contact: PERS (International) (801) 629-0667

2. Hazards Identification

GHS Classification
Skin Corrosion/Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 2B
Skin Sensitization, Category 1B
Aquatic Toxicity (Acute), Category 2
Aquatic Toxicity (Chronic), Category 2

Placard
Exclamation point none
Exclamation point none
Exclamation point none

Key word
Warning
Warning
Warning

GHS hazard phrase
Causes skin irritation
Causes eye irritation
May cause an allergic skin reaction

GHS Hazard Phrases
H315 - Causes skin irritation.
H320 - Causes eye irritation.
H317 - May cause an allergic skin reaction.
H401 - Toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

GHS Precaution Phrases
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P261 - Avoid breathing dust/mist/vapors/spray.
P262 - Do not get in eyes, on skin, or on clothing.
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. P332+313 - If skin irritation occurs, get medical advice/attention.
P362 - Take off contaminated clothing.
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+341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. P314 - Get medical attention/advice if you feel unwell.
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P311 - Call a POISON CENTER or doctor/physician.
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)
May cause eye irritation. May cause skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

Inhalation
May cause respiratory irritation.

Skin Contact
May cause skin irritation. Allergic reactions are possible.

Eye Contact
Causes eye irritation.

Ingestion
May be harmful if swallowed.

Recommended Exposure Limits
Not established.

Medical Conditions Generally Aggravated By Exposure
Skin disorders, Respiratory disorders, Eye disorders, Skin Allergies.

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>45 - 60 %</td>
</tr>
<tr>
<td>2. Iron oxide</td>
<td>1317-61-9</td>
<td>0 - 15 %</td>
</tr>
<tr>
<td>3. Iron oxide (Fe2O3)</td>
<td>1309-37-1</td>
<td>0 - 15 %</td>
</tr>
<tr>
<td>4. C.I. Pigment Yellow 42</td>
<td>51274-00-1</td>
<td>0 - 15 %</td>
</tr>
<tr>
<td>5. Carbon black</td>
<td>1333-86-4</td>
<td>0 - 15 %</td>
</tr>
<tr>
<td>6. Titanium dioxide</td>
<td>13463-67-7</td>
<td>0 - 15 %</td>
</tr>
<tr>
<td>7. Talcum</td>
<td>14807-96-6</td>
<td>1.0 - 10 %</td>
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<tr>
<td>8. (+)-Propylene carbonate, Anhydrous</td>
<td>108-32-7</td>
<td>1.0 - 10 %</td>
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<td>9. Oxirane, Mono.,(C12-14-alkyloxy)methyl.). derivs.</td>
<td>68609-97-2</td>
<td>1.0 - 10 %</td>
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<tr>
<td>10. Quaternary ammonium compounds, coco alkylethldimethyl, ethyl sulfates</td>
<td>68308-64-5</td>
<td>&lt;3.0 %</td>
</tr>
<tr>
<td>11. Antimony tin oxide complex</td>
<td>NA</td>
<td>1.0 - 10 %</td>
</tr>
<tr>
<td>12. Silica</td>
<td>7631-86-9</td>
<td>1.0 - 10 %</td>
</tr>
<tr>
<td>13. Silica, amorphous treated</td>
<td>112945-52-5</td>
<td>1.0 - 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

May cause skin, eye, and respiratory irritation. May cause allergic skin reaction.

5. Fire Fighting Measures

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

Fire Fighting Instructions

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

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

Hazardous decomposition products formed under fire conditions. Carbon dioxide, Carbon monoxide.

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 TLV</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. Iron oxide</td>
<td>1317-61-9</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>
Hazardous Components (Chemical Name) | CAS #  | OSHA PEL | ACGIH TLV | Other Limits
---|---|---|---|---
3. Iron oxide (Fe2O3) | 1309-37-1 | 10 mg/m3 | 5 mg/m3 (dust & fume) | No data.
4. C.I. Pigment Yellow 42 | 51274-00-1 | No data. | No data. | No data.
5. Carbon black | 1333-86-4 | 3.5 mg/m3 | No data. | No data.
6. Titanium dioxide | 13463-67-7 | 15 (dust) mg/m3 | 10 mg/m3 | No data.
7. Talcum | 14807-96-6 | 706 ppm/20 mppcf | No data. | No data.
10. Quaternary ammonium compounds, coco alkylethyl(dimethyl, ethyl sulfates | 68308-64-5 | No data. | No data. | No data.
12. Silica | 7631-86-9 | No data. | No data. | 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. May be hazardous to the environment if released in large quantities.

### 9. Physical and Chemical Properties

**Physical States:** [ ] Gas [ X ] Liquid [ ] Solid

**Melting Point:** NE

**Boiling Point:** NE

**Decomposition Temperature:** NE

**Autoignition Pt:** No data.

**Flash Pt:** > 200.00 C Method Used: Pensky-Marten Closed Cup

**Explosive Limits:** LEL: NE UEL: NE
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.

Hazardous Decomposition Or Byproducts

Thermal decomposition may produce smoke, carbon monoxide, carbon dioxide.

Possibility of Hazardous Polymerization:

Will occur [ ] Will not occur [ X ]

Conditions To Avoid - Hazardous Reactions

Will not undergo hazardous polymerization in normal storage conditions.

11. Toxicological Information

Toxicological Information

May cause sensitization by skin contact.

Chronic Toxicological Effects

Skin sensitization.

Irritation or Corrosion

Skin irritation. Irritating to eyes.

Symptoms related to Toxicological Characteristics

May cause redness, rash on skin.

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
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<tr>
<td>1. Bisphenol-a based epoxy resin</td>
<td>25068-38-6</td>
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<td>n.a.</td>
<td>n.a.</td>
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<td>1317-61-9</td>
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<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>3. Iron oxide (Fe2O3)</td>
<td>1309-37-1</td>
<td>n.a.</td>
<td>3</td>
<td>A4</td>
<td>n.a.</td>
</tr>
<tr>
<td>4. C.I. Pigment Yellow 42</td>
<td>51274-00-1</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>5. Carbon black</td>
<td>1333-86-4</td>
<td>n.a.</td>
<td>2B</td>
<td>A4</td>
<td>n.a.</td>
</tr>
</tbody>
</table>
Hazardous Components (Chemical Name) | CAS # | NTP | IARC | ACGIH | OSHA
--- | --- | --- | --- | --- | ---
7. Talc | 14807-96-6 | n.a. | n.a. | n.a. | n.a.
8. (+)-Propylene carbonate, Anhydrous | 108-32-7 | n.a. | n.a. | n.a. | n.a.
10. Quaternary ammonium compounds, coco alkylethylmethyl, ethyl sulfates | 68308-64-5 | n.a. | n.a. | n.a. | n.a.
11. Antimony tin oxide complex | NA | n.a. | n.a. | n.a. | n.a.
12. Silica | 7631-86-9 Known | 3 | n.a. | n.a. | n.a.
13. Silica, amorphous treated | 112945-52-5 | 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.

Persistence and Degradability
Not readily biodegradable.

Bioaccumulative Potential
No data available.

Mobility in Soil
not reported, unknown.

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 Resin) MARINE POLLUTANT.

NOTE: Marine Pollutants - DOT requirements specific to Marine Pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars or aircraft.

DOT Hazard Class: 9
DOT Hazard Label: CLASS 9
UN/NA Number: UN3082
Packing Group: III
Precautionary Label
Avoid skin and eye contact. May cause eye and skin irritation. May cause skin sensitization. Wear protective equipment and clothing. Always read MSDS/SDS before use.

AIR TRANSPORT (ICAO/IATA)
SAFETY DATA SHEET
#672 Conductive Part A (pigmented)

ICAO/IATA Shipping Name  
(Non-Bulk)  
Not Regulated.  
(Bulk)  
Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin) MARINE POLLUTANT.

NOTE: Marine Pollutants - DOT requirements specific to Marine Pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars or aircraft.

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 Resin) MARINE POLLUTANT.

Note: The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. Shipment compliance is the responsibility of the person offering the product for transport.

UN Number: 3082  
Hazard Class: 9 - CLASS 9  
Packing Group: III  
IMDG MFAG Number: FA, SF  
Marine Pollutant: Yes

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>
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<td>4. C.I. Pigment Yellow 42</td>
<td>51274-00-1</td>
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<td>5. Carbon black</td>
<td>1333-86-4</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>6. Titanium dioxide</td>
<td>13463-67-7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>7. Talcum</td>
<td>14807-96-6</td>
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<td>8. (+)-Propylene carbonate, Anhydrous</td>
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Regulatory Information

SARA 302 Extremely Hazardous Substances: None.

SARA Section 311/312: Acute Health Hazard.

SARA 313 Toxic Chemicals: None.
CERCLA Reportable Quantity: None.

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: 07/07/2016