SAFETY DATA SHEET
Epoxy.com #671 CONDUCTIVE PRIMER/SEALER

1. Product and Company Information

Product Name: Epoxy.com Product #671 CONDUCTIVE PRIMER/SEALER
Company Name: Epoxy Systems, Inc.
20774 W Pennsylvania Ave
Dunnellon, FL 3443
Phone Number: (352) 489-1666

Emergency Contact: PERS (USA): 800-633-8252   PERS (International) +1 801-629-0067

Acute Toxicity: Inhalation, Category 4
Serious Eye Damage/Eye Irritation, Category 2A
Skin Sensitization, Category 1
Target Organ Systemic Toxicity (single exposure), Category 3
Target Organ Systemic Toxicity (repeated exposure), Category 2

2. Hazards Identification

Target Organ Systemic Toxicity (repeated exposure), Category 2
Target Organ Systemic Toxicity (single exposure), Category 3
Skin Sensitization, Category 1
Serious Eye Damage/Eye Irritation, Category 2A
Flammable Liquids, Category 2
Acute Toxicity: Skin, Category 4
Acute Toxicity: Inhalation, Category 4
Skin Corrosion/Irritation, Category 2
Aquatic Toxicity (Acute): Category 4

GHS Signal Word: Danger

GHS Hazard Phrases:

H373 - May cause damage to organs through prolonged or repeated exposure.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.
H226 - Flammable liquid and vapor.
H332 - Harmful if inhaled.

GHS Precaution Phrases:
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P271 - Use only outdoors or in a well-ventilated area.

GHS Response Phrases:
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P332+313 - If skin irritation occurs, get 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. Get medical attention.
P370+378 - In case of fire, use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.
P501 - Contact a licensed professional waste disposal service to dispose of this material.
P403+235 - Store in cool/well-ventilated place. Store locked up.

GHS Storage and Disposal Phrases:
Potential Health Effects (Acute and Chronic):
Inhalation:

Chronic inhalation may cause effects similar to those of acute inhalation.
May be harmful if inhaled. Causes respiratory tract irritation. Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Vapors may cause dizziness or suffocation.
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Skin Contact: May be harmful if absorbed through the skin. Causes skin irritation. Prolonged and/or repeated contact may cause irritation and/or dermatitis. Causes redness and pain.

Eye Contact: Causes severe eye irritation. Causes redness and pain.

Ingestion: May be harmful if swallowed. May be harmful if inhaled. Causes respiratory tract irritation. May cause irritation of the digestive tract. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7</td>
<td>Silicon Dioxide</td>
<td>55.0 - 65.0%</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Epoxy Novolac Polymer</td>
<td>20.0 - 30.0%</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene (mixed isomers)</td>
<td>5.0 - 10.0%</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
<td>5.0 - 10.0%</td>
</tr>
<tr>
<td>108-65-6</td>
<td>Propylene glycol methyl ether acetate</td>
<td>1.0 - 5.0%</td>
</tr>
<tr>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td>0.0 - 2.0%</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Emergency and First Aid Procedures
In Case of Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Remove from exposure and move to fresh air immediately. Get medical aid.

In Case of Skin Contact: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If skin irritation occurs, get medical advice/attention.

In Case of Eye Contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

In Case of Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting. Get medical aid.


Note to Physician: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Treat symptomatically and supportively.

5. Fire Fighting Measures

Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Fire Fighting Instructions: Use water spray to cool unopened containers. Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Flammable Liquid. Emits toxic fumes under fire conditions. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Flammable liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Flammable Properties and Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. Forms explosive mixtures in air.

6. Accidental Release Measures

Steps To Be Taken In Case Material is Released Or Spilled: Personal precautions. Use personal protective equipment.

Spills/Leaks: Control runoff and isolate discharged material for proper disposal. Use water spray to cool and disperse vapors and protect personnel.
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7. Handling and Storage

Precautions To Be Taken
In Handling:
Avoid contact with skin and eyes. Normal measures for preventive fire protection.
Avoid inhalation of vapor or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic electrostatic charge.

Precautions to be Taken
In Storing:
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7</td>
<td>Silicon Dioxide</td>
<td>PEL: 8825 ppm /(%SiO2+5)</td>
<td>TLV: 0.05 MG/M3 (R)</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Epoxy Novolac Polymer</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene (mixed isomers)</td>
<td>PEL: 100 ppm</td>
<td>TLV: 100 ppm</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>Titanium Dioxide</td>
<td>PEL: 15 (dust) mg/m3</td>
<td>TLV: 10 mg/m3</td>
</tr>
<tr>
<td>25154-52-3</td>
<td>Phenol, Nonyl-</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>108-65-6</td>
<td>Propylene Glycol Methyl</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>100-41-4</td>
<td>Ether Acetate</td>
<td>PEL: 100 ppm</td>
<td>TLV: 100 ppm</td>
</tr>
</tbody>
</table>

Respiratory Equipment
For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) (Specify Type): respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a back-up to engineering controls.
Eye Protection: Safety glasses with side shield. For a higher degree of protection, wear chemical splash goggles.
Protective Gloves: Wear appropriate protective gloves to prevent skin exposure, such as butyl rubber or nitrile rubber.
Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure.
Engineering Controls (Ventilation, etc.): Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Work/Hygienic/ Maintenance Practices: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Wash thoroughly after handling. Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Physical States: [ ] Gas [X] Liquid [ ] Solid
Flash Point: 81° F
Boiling Point: 260° F
Explosive Limits: LEL: 1.0 UEL: 7.1
Weight Per Gallon: 15.0 +/- .5
Vapor Pressure (mm Hg): 7.1 @ 68° F
Vapor Density: Heavier than Air
Evaporation Rate: Slower than Ether
Percent Volatile: 19 (Vol)

10. Stability and Reactivity

Stability: Unstable [ ] Stable [X]
Conditions to Avoid: Heat, flames and sparks. Ignitonsources.
Instability: Strong oxidizing agents, acids
Incompatibility – Materials To Avoid: Nature of decomposition products unknown.
Hazardous Decomposition Or Byproducts: Will occur [ ] Will not occur [X]
Possibility of Hazardous Reactions: No data available.
Conditions To Avoid – Hazardous Reactions:
11. Toxicological Information

**Toxicological Information:**
- Germ cell mutagenicity. Reproductive toxicity - no data available.
- Aspiration hazard. Inhalation: May cause damage to organs through prolonged or repeated exposure. Epidemiology: Teratogenicity: No information available.

**Carcinogenicity/Other Information:**
- These products contain more than 0.1% crystalline silica (CAS #14808-60-7) which has been classified by IARC a Class 1 carcinogen. Normal application procedures pose no hazard since the silica is set and encapsulated, but grinding or sanding dried films may yield respirable silica dusts. Control exposures to less than 0.1 mg per cubic meter of air using approved dust filter respirators. Skin contact: Prolonged or repeated contact with product may cause slight skin irritation. Impervious gloves should be worn if prolonged skin contact is likely.

**ACGIH Carcinogens**
- Quartz (CAS 14808-60-7) A2 Suspected human carcinogen
- IARC Monographs, Overall Evaluation of Carcinogenicity
  - Quartz (CAS 14808-60-7) 1 Carcinogenic to humans
- US NTP Report on Carcinogens: Known Carcinogen
  - Quartz (CAS 14808-60-7) Known to be human carcinogen

OSHA PEL: Exposure to airborne crystalline silica shall not exceed an 8 hour time weighted average limit as stated in 29CFR 1910.1000, Table-Z-1-A Air contaminants, specifically: Silica, Crystalline Quartz (Respirable) 0.1 MG/M3. ACGIH TLV-TWA: 01 MG/M3. NIOSH Maximum permissible conc. 0.05 MG/M3, 10 hour workday, 40 hour week. This product contains the following substances known to the State of California to cause cancer, birth defects, or other reproductive hazards: Benzene, Toluene, Crystalline Silica.

12. Ecological Information

**General Ecological Information:**
- No data available

**Persistence and Degradability:**
- No data available

**Bioaccumulative Potential:**
- No data available

**Mobility in Soil:**
- No data available

13. Disposal Considerations

**Waste Disposal Method:**
- Dispose of as unused product. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. Transport Information

**LAND TRANSPORT (US DOT):**
- Consumer commodity – ORM-D – Used for 1 gallon containers when shipped in the United States of America
- UN1263, Paint Related Material, 3, PG III – 5 Gallon pails

**Marine Transport**
- UN1263, Paint Related Material, 3, PG III
- IMDG Shipping: The marine pollutant mark is not required when transported in sizes of <5 L or <5 kg (per container)

**AIR TRANSPORT (ICAO/IATA):**
- UN1263, Paint Related Material, 3, PG III
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15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
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<td>Ethylbenzene</td>
<td>No</td>
<td>Yes 1000 LB</td>
<td>Yes</td>
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</table>

V.O.C. (WHITE) 1.24 LBS/GAL. (148 GMS/L)

16. Other Information

Revision Date: 10/29/2015
Additional Information About This Product:

Hazardous Material Information System III (U.S.A)

Health: 2*
Flammability: 3
Reactivity: 0
Personal Protection: *

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by Epoxy Systems, Inc., and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.