1. Product and Company Identification

Product Code: 632-B
Product Name: 632 Novolac Joint Filler Regular/Fast Cure Hardeners - Part B
Company Name: Epoxy Systems, Inc.
Company Address: 20774 W Pennsylvania Ave.
Dunnellon, FL 34431
Phone Number: +1 (352) 489-1666

Emergency Contact:
PERS (USA)  (800) 633-8252
PERS (International)  +1 (801) 629-0667

Intended Use: Industrial floor coatings.

2. Hazards Identification

Acute Toxicity: Oral, Category 4
Acute Toxicity: Skin, Category 4
Skin Corrosion/Irritation, Category 1B
Serious Eye Damage/Eye Irritation, Category 1
Skin Sensitization, Category 1
Aquatic Toxicity (Acute), Category 1
Aquatic Toxicity (Chronic), Category 1

GHS Hazard Phrases:
H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H317 - May cause an allergic skin reaction.
H400 - Very toxic to aquatic life.
H410 - Very 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.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P273 - Avoid release to the environment.
P103 - Read label before use.

GHS Response Phrases:
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. P363 - Wash contaminated clothing before reuse. 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.
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P311 - Call a POISON CENTER or doctor/physician.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P342+311 - If experiencing respiratory symptoms 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.
P405 - Store locked up.
This material is classified as hazardous under OSHA regulations.

May cause skin irritation or burns. May cause respiratory tract irritation. Can cause severe eye irritation.

Can cause severe respiratory irritation.

Contact with substance may cause severe burns to skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Corrosive/irritation to eyes. Causes eye burns.

Harmful if swallowed. This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Skin disorders, Respiratory disorders, Eye disorders, Skin Allergies.

Skin disorders, Respiratory disorders, Eye disorders, Skin Allergies.

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>84852-15-3</td>
<td>Phenol, 4-nonyl-, branched</td>
<td>45 - 60 %</td>
</tr>
<tr>
<td>9046-10-0</td>
<td>Poly(oxy(methyl-1,2-ethanediyl)</td>
<td>15 - 25 %</td>
</tr>
<tr>
<td>1317-65-3</td>
<td>Limestone</td>
<td>5.0 - 20 %</td>
</tr>
<tr>
<td>NA</td>
<td>Aliphatic Amines</td>
<td>1.0 - 10 %</td>
</tr>
<tr>
<td>112945-52-5</td>
<td>Silica, amorphous treated</td>
<td>1.0 - 5.0 %</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Emergency and First Aid Procedures:

In Case of Inhalation: If inhaled, remove to fresh air. If 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. Get medical attention immediately.

In Case of Ingestion: If swallowed, wash out mouth with water provided person is conscious. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Get medical attention immediately.

Signs and Symptoms Of Exposure: Eyes: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: Can cause severe skin burns. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Inhalation: Vapors are irritating to the respiratory system, may cause throat pain and cough.
5. Fire Fighting Measures

Flash Pt: > 200.00 F (93.3 C)  Method Used:  Closed Cup
Explosive Limits: LEL: NE  UEL: NE
Autoignition Pt: No data.
Suitable Extinguishing Media: CO2, dry chemical, dry sand, alcohol-resistant foam.
Unsuitable Extinguishing Media: Do not use a direct water stream, which may spread fire.
Fire Fighting Instructions: Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Flammable Properties and Hazards: Combustible material: may burn but does not ignite readily.

6. Accidental Release Measures

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.
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.

7. Handling and Storage

Precautions To Be Taken in Handling: Provide adequate ventilation. Wear all personal protection required in section 8.
Precautions To Be Taken in Storing: Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible material.
Other Precautions: Read product SDS and all labels before use. Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>84852-15-3</td>
<td>Phenol, 4-nonyl-, branched</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>9046-10-0</td>
<td>*Poly(oxy(methyl-1,2-ethanediyl)</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>1317-65-3</td>
<td>Limestone</td>
<td>PEL: 15 (dust); 5 (resp.) mg/m3</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>NA</td>
<td>Aliphatic Amines</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>112945-52-5</td>
<td>Silica, amorphous treated</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

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.
9. Physical and Chemical Properties

Physical States: [ ] Gas [ X ] Liquid [ ] Solid
Appearance and Odor: Odor: amine-like.
Appearance: Liquid. amber.
Melting Point: NE
Boiling Point: NE
Decomposition Temperature: NE
Autoignition Pt: No data.
Flash Pt: > 200.00 F (93.3 C) Method Used: Closed Cup
Explosive Limits: LEL: NE UEL: NE
Specific Gravity (Water = 1): ~ 1.07
Density: ~ 8.93 LB/GL
Vapor Pressure (vs. Air or mm Hg): NE
Vapor Density (vs. Air = 1): NE
Evaporation Rate: NE
Solubility in Water: NE
Saturated Vapor Concentration: NE
Percent Volatile: N.A.
VOC / Volume: NP

10. Stability and Reactivity

Reactivity: Avoid: acids, alkalis, oxidizing agents.
Stability: Unstable [ ] Stable [ X ]
Conditions To Avoid - Instability: Extreme temperatures.
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 ]
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.

Irritation or Corrosion: Corrosive! Damages skin and eyes.

Symptoms related to Toxicological Characteristics: Skin: Contact with substance may cause severe burns to skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Eyes: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Permanent eye damage including blindness could result. Inhalation: Inhalation of vapors/fumes causes respiratory irritation with throat discomfort, coughing or difficulty breathing.

Sensitization: May cause sensitization by skin contact.

12. Ecological Information

General Ecological Information: Avoid release to the environment. Do not empty into drains. 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: CAUSTIC ALKALI LIQUID, N.O.S. (Aliphatic Amines) (Nonylphenol) MARINE POLLUTANT.

Marine Pollutant(s): Nonylphenol.

DOT Hazard Class: 8 CORROSIVE

UN/NA Number: UN1719

Precautionary Label: Corrosive! Damages skin and eyes. 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.
SAFETY DATA SHEET
632 Novolac Joint Filler Regular/Fast Cure
Hardeners - Part B

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: CAUSTIC ALKALI LIQUID, N.O.S. (Aliphatic Amines) (Nonylphenol) MARINE POLLUTANT.

Marine Pollutant(s): Nonylphenol.

UN Number: 1719
Packing Group: II
Hazard Class: 8 - CORROSIVE
IMDG EMS Number: FA,SB
IMDG EMS Page: Yes

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: CAUSTIC ALKALI LIQUID, N.O.S. (Aliphatic Amines) (Nonylphenol) MARINE POLLUTANT.

Marine Pollutant(s): Nonylphenol.

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

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>
<th>S. 313 (TRI)</th>
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<tbody>
<tr>
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<td>No</td>
<td>No</td>
</tr>
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This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections:

<table>
<thead>
<tr>
<th>Acute (immediate) Health Hazard</th>
<th>Chronic (delayed) Health Hazard</th>
<th>Fire Hazard</th>
<th>Sudden Release of Pressure Hazard</th>
<th>Reactive Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>[X] Yes</td>
<td>[ ] No</td>
<td>[ ] Yes</td>
<td>[X] No</td>
<td>[ ] Yes</td>
</tr>
</tbody>
</table>

GHS format
### 16. Other Information

**Revision Date:** 07/07/2016

**Hazard Rating System:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>3</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>1</td>
</tr>
<tr>
<td>PHYSICAL</td>
<td>0</td>
</tr>
</tbody>
</table>

**HMIS:**
- HEALTH: 3
- FLAMMABILITY: 1
- PHYSICAL: 0
- PPE: X

**Additional Information About This Product:**

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.