1. Product and Company Identification

Product Code: 301-RCB
Product Name: 301 Regular Cure Hardener- Part B
Trade Name: 301 Regular Cure Hardener- Part B

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) +1 (801) 629 0667

Intended Use: Industrial floor coatings.

2. Hazards Identification

<table>
<thead>
<tr>
<th>GHS Classification</th>
<th>Placard</th>
<th>Key word</th>
<th>GHS hazard phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Sensitization, Category 1A</td>
<td>Exclamation point</td>
<td>Warning</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation, Category 1A</td>
<td>Corrosive</td>
<td>Danger</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Serious Eye Damage/Eye Irritation, Category 1</td>
<td>Corrosive</td>
<td>Danger</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>Acute Toxicity: Oral, Category 4</td>
<td>Exclamation point</td>
<td>Warning</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>Acute Toxicity: Inhalation, Category 4</td>
<td>Exclamation point</td>
<td>Warning</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>Acute Toxicity: Skin, Category 4</td>
<td>Exclamation point</td>
<td>Warning</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>Aquatic Toxicity (Acute), Category 1</td>
<td>Pollution</td>
<td>Warning</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>Aquatic Toxicity (Chronic), Category 1</td>
<td>Pollution</td>
<td>Warning</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

GHS Hazard Phrases

H317 - May cause an allergic skin reaction.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H302 - Harmful if swallowed.
H332 - Harmful if inhaled.
H312 - Harmful in contact with skin.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.

GHS Precaution Phrases

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P281 - Use personal protective equipment as required.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
GHS Response Phrases

P302+352 - IF ON SKIN: Wash with plenty of soap and water. P333+313 - If skin irritation or rash occurs, seek medical advice/attention. P363 - Wash contaminated clothing before reuse.
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. P310 - Immediately 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. 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.
P405 - Store locked up.

Potential Health Effects (Acute and Chronic)

Corrosive to eyes and skin. Causes burns. May be harmful if swallowed. Irritating to respiratory system. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Inhalation

Corrosive to respiratory tract. May cause respiratory sensitization.

Skin Contact

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

Eye Contact

Corrosive/irritation to eyes. Causes eye burns.

Ingestion

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.

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. Phenol, 4-nonyl-, branched</td>
<td>84852-15-3</td>
<td>15 - 30 %</td>
</tr>
<tr>
<td>2. Formaldehyde, polymer with benzenamine, hydrogenated</td>
<td>135108-88-2</td>
<td>20 - 30 %</td>
</tr>
<tr>
<td>3. Benzenemethanol</td>
<td>100-51-6</td>
<td>10 - 20 %</td>
</tr>
<tr>
<td>4. Diethylenetriamine</td>
<td>111-40-0</td>
<td>5.0 - 15 %</td>
</tr>
<tr>
<td>5. 2,4,6-Tris(Dimethylaminomethyl)Phenol</td>
<td>90-72-2</td>
<td>1.0 - 10 %</td>
</tr>
<tr>
<td>6. Tetraethylenepentamine</td>
<td>112-57-2</td>
<td>5.0 - 10 %</td>
</tr>
<tr>
<td>7. 4,4'-Isopropylidenediphenol</td>
<td>80-05-7</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 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
Combustible material: may burn but does not ignite readily.

Hazardous Combustion Products
In a fire, product may produce the following: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Ammonia, Aldehydes. Fire may produce irritating, corrosive and/or toxic gases.

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.

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 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. 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
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. Phenol, 4-nonyl-, branched</td>
<td>84852-15-3</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>3. Benzenemethanol</td>
<td>100-51-6</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>4. Diethylenetriamine</td>
<td>111-40-0</td>
<td>No data.</td>
<td>1 ppm</td>
<td>No data.</td>
</tr>
<tr>
<td>5. 2,4,6-Tris(Dimethylaminomethyl)Phenol</td>
<td>90-72-2</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>7. 4,4'-Isopropylidenediphenol</td>
<td>80-05-7</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

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>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical States:</td>
<td>[ ] Gas [X] Liquid [ ] Solid</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>NE</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>NE</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>NE</td>
</tr>
<tr>
<td>Autoignition Pt:</td>
<td>No data.</td>
</tr>
<tr>
<td>Flash Pt:</td>
<td>&gt; 200.00 F Method Used: Pensky-Marten Closed Cup</td>
</tr>
<tr>
<td>Explosive Limits:</td>
<td>LEL: NE UEL: NE</td>
</tr>
<tr>
<td>Specific Gravity (Water = 1):</td>
<td>~ .9952 - 1.00</td>
</tr>
<tr>
<td>Density:</td>
<td>~ 8.3 - 8.35 LB/GL</td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg):</td>
<td>NE</td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1):</td>
<td>NE</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>NE</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Soluble</td>
</tr>
<tr>
<td>Percent Volatile:</td>
<td>N.A.</td>
</tr>
<tr>
<td>VOC / Volume:</td>
<td>NP</td>
</tr>
<tr>
<td>HAP / Volume:</td>
<td>NP</td>
</tr>
<tr>
<td>Saturated Vapor Concentration:</td>
<td>NE</td>
</tr>
</tbody>
</table>

**Appearance and Odor**
- Odor: amine-like.
- Appearance: Liquid. amber.

### 10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability:</td>
<td>Unstable [ ] Stable [X]</td>
</tr>
<tr>
<td>Reactivity</td>
<td></td>
</tr>
<tr>
<td>Avoid: acids, alkalis, oxidizing agents.</td>
<td></td>
</tr>
<tr>
<td>Conditions To Avoid - Instability</td>
<td></td>
</tr>
<tr>
<td>Extreme temperatures.</td>
<td></td>
</tr>
<tr>
<td>Incompatibility - Materials To Avoid</td>
<td></td>
</tr>
<tr>
<td>Avoid strong acids, bases, and oxidizing agents.</td>
<td></td>
</tr>
<tr>
<td>Hazardous Decomposition Or Byproducts</td>
<td></td>
</tr>
<tr>
<td>Possibility of Hazardous Polymerization:</td>
<td>Will occur [ ] Will not occur [X]</td>
</tr>
</tbody>
</table>

**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**
- 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.

<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>
</thead>
<tbody>
<tr>
<td>1. Phenol, 4-nonyl-, branched</td>
<td>84852-15-3</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>2. Formaldehyde, polymer with benzenamine, hydrogenated</td>
<td>135108-88-2</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>3. Benzenemethanol</td>
<td>100-51-6</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>4. Diethylenetriamine</td>
<td>111-40-0</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>5. 2,4,6-Tris(Dimethylaminomethyl)Phenol</td>
<td>90-72-2</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>6. Tetraethylenepentamine</td>
<td>112-57-2</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>7. 4,4'-Isopropylidendiphenol</td>
<td>80-05-7</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

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. (Modified Amido Amine) (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.

DOT Hazard Class: 8
DOT Hazard Label: CORROSIVE
UN/NA Number: UN1719
Packing Group: III
**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.

**AIR TRANSPORT (ICAO/IATA)**

ICAO/IATA Shipping Name: CAUSTIC ALKALI LIQUID, N.O.S. (Modified Amido Amine) (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.

UN Number: 1719

Hazard Class: 8 - CORROSIVE

Packing Group: III

**MARINE TRANSPORT (IMDG/IMO)**

IMDG/IMO Shipping Name: CAUSTIC ALKALI LIQUID, N.O.S. (Modified Amido Amine) (Nonylphenol)

Marine Pollutant(s): Nonylphenol.

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: Hazard 1719

Class: Packing 8 - CORROSIVE

Group: IMDG EMS III

Number: Marine FA,SB

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>
</tr>
</thead>
<tbody>
<tr>
<td>1. Phenol, 4-nonyl-, branched</td>
<td>84852-15-3</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>2. Formaldehyde, polymer with benzenamine, hydrogenated</td>
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<td>No</td>
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<td>3. Benzenemethanol</td>
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<td>No</td>
<td>No</td>
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<td>No</td>
</tr>
<tr>
<td>4. Diethylenetriamine</td>
<td>111-40-0</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>5. 2,4,6-Tris(Dimethylaminomethyl)Phenol</td>
<td>90-72-2</td>
<td>No</td>
<td>No</td>
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<td>80-05-7</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Regulatory Information

SARA Section 311/312: Acute, Chronic 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

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