1. **Section 1 – Identification**

   **Product Name:** Liquid Cast – Epoxy Hardener  
   **Product Class:** Epoxy Hardener  
   **Manufacturer/Supplier:** KSRESIN  
   **Supplier:** 459 Denver Ave  
   Loveland, CO 80537  
   **Telephone:** 833-683-0033  
   **Emergency:** 800-424-9300 (ChemTrec)

2. **Section 2 – Hazard(s) Identification**

   **Form:** Viscous Liquid  
   **OSHA/HCS Status:**  
   - Skin Irritation – Category 2  
   - Eye Irritation – Category 2A  
   - Skin Sensitization – Category 1  
   - Acute Aquatic Toxicity – Category 2  
   - Chronic Aquatic Toxicity – Category 2  
   This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

   **Hazard Pictograms:** ![Pictograms]

   **Signal Word:** Danger  
   **Hazard Statement:**  
   H302 Harmful if swallowed  
   H314 Causes severe skin burns and eye damage.  
   H318 Causes serious eye damage.  
   H361 Suspected of damaging fertility or the unborn child.  
   H411 Very toxic to aquatic life with long lasting effects.

   **Precautionary statements**  
   **Prevention:**  
   Do not handle until all safety precautions have been read and understood.  
   Wear protective gloves/protective clothing/eye protection/face protection.  
   Avoid release to the environment.
Do not eat, drink, or smoke when using this product.
Wash skin thoroughly after handling.
Use personal protective equipment as required.

Response:
IF ON SKIN: Remove immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.

If skin irritation or rash occurs: Seek medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Absorb spillage to prevent material damage.

Disposal:
Dispose of contents/container to hazardous or special waste collection point.

3. Section 3 – Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether</td>
<td>39423-51-3</td>
<td>&gt; 10%</td>
</tr>
<tr>
<td>4-Nonylphenol, branched</td>
<td>84852-15-3</td>
<td>&gt; 10%</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>&lt; 40%</td>
</tr>
</tbody>
</table>

4. Section 4 – First-Aid Measures

Consult a physician. Show this safety data sheet to the doctor in attendance. First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

After skin contact: Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a specialist.
After eye contact: Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

After inhalation: Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

After swallowing: Immediately rinse mouth and then drink 200-300ml of water, seek medical attention.

Notes to Physician: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Section 5 – Fire-Fighting Measures

Suitable extinguishing Water spray, dry powder, carbon dioxide, foam.

Special protective equipment for Firefighters: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Special Exposure Hazards: No particular hazards known.

6. Section 6 – Accidental Release Measures

Personal Precautions: Use personal protective equipment (PPE). Avoid breathing vapors, mist, or gas. Use personal protective clothing. Ensure adequate ventilation.

Measures for Environmental Protection: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution.

Measures for spill: Soak up with inert absorbent material and dispose of as hazardous waste.

7. Section 7 – Handling and Storage

Handling: Avoid contact with skin. Wear appropriate PPE. Avoid inhalation of vapor.

Storage: Segregate from acids and acid forming substances. Containers should be stored tightly sealed in a dry place. Keep container tightly closed and in a well-
ventilated place. Keep away from sources of ignition – no smoking. Keep container tightly closed.

8. Section 8 – Exposure Controls/Personal Protection

General protective and hygienic measures:
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

Breathing Equipment:
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. In most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vap or cartridge with a particulate pre-filter.

Protection of skin:
Personal protective equipment should always be used.

Protection of eyes:
Wear face shield or tightly fitting safety goggles if splashing hazard exists.

9. Section 9 – Physical and Chemical Properties

Form: Liquid
Odor: Amine-like
Color: Clear to yellow
pH: 12
Melting point: < -10°C
Boiling point: > 250°C
Flash point: > 150°C ASTM D93
Flammability: Not flammable
Lower explosion limit: For liquids not relevant for classification and labeling. The lower explosion point may be 5-15°C below the flash point.
Upper explosion limit: For liquids not relevant for classification and labelling.
Autoignition: > 200°C
Vapor pressure: 1.6 mbar @ 20°C, 10.5 mbar @ 55°C
Density: 0.987 g/cm³ @ 20°C
Thermal decomposition: Thermal decomposition above the indicated temperature is possible. Self-accelerating reaction.
Viscosity, dynamic: 1,500 – 2,000 CPS
Solubility in water: Not very soluble (<1%)
Evaporation rate: < Ether

10. Section 10 – Stability and Reactivity

Reactivity: No hazardous reactions if stored and handled as prescribed/indicated.
Corrosion to metals: Corrosive effect on metals.
Chemical Stability: The product is stable if stored and handled as prescribed/indicated.
Conditions to Avoid: No conditions that should be avoided.
Incompatible materials: Acids, oxidizing agents.
Hazardous decomposition products: Decomposition products: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Thermal decomposition: 145°C (DSC (DIN 51007)) 315°C (DSC (DIN 51007)) Thermal decomposition above the indicated temperature is possible. Self-accelerating reaction.

11. Section 11 – Toxicological Information

Polyetheramine
Primary routes of exposure: Routes for entry of solids and liquids are ingestion and inhalation but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute Toxicity/Effects
Acute toxicity: Of moderate toxicity after single ingestion. Of moderate toxicity after short-term skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard.
Assessment other effects: Based on the available information there is no specific target organ toxicity to be expected after a single exposure.
Irritation/corrosion: May cause slight irritation to the skin. May cause severe damage to the eyes.
**Sensitization:** Skin sensitizing effects were not observed in animal studies.

**Aspiration hazard:** No aspiration hazard expected.

### Chronic Toxicity/Effects

**Repealed dose toxicity:** No adverse effects were observed after repeated dermal exposure in animal studies. After repeated exposure the prominent effect is local irritation.

**Genetic toxicity:** The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals.

**Carcinogenicity:** No data available.

**Reproductive toxicity:** The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a screening test (OECD 421/422).

**Teratogenicity:** In animal studies the substance did not cause malformations. The results were determined in a screening test (OECD 421/422).

### Nonyl-Phenol

**Acute toxicity:** Inhalation: No data available  
Dermal: No data available

**Germ cell mutagenicity:** No data available

**Carcinogenicity**

- **IARC:** No component of this product present at levels greater than or equal to 0.1% as identified probable, possible or confirmed human carcinogen by IARC.
- **ACGIH:** No component of this product present at levels greater than or equal to 0.1% as identified probable, possible or confirmed human carcinogen by ACGIH.
- **NTP:** No component of this product present at levels greater than or equal to 0.1% as identified probable, possible or confirmed human carcinogen by NTP.
- **OSHA:** No component of this product present at levels greater than or equal to 0.1% as identified probable, possible or confirmed human carcinogen by OSHA.

**Reproductive toxicity:** Suspected human reproductive toxicant

**Specific target organ:** No data available

**Aspiration hazard:** No data available

### 12. Section 12 – Ecological Information

**Toxicity**

**Aquatic toxicity:** Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
Persistence and degradability
Biodegradation and elimination: Not readily biodegradable (by OECD criteria). Poorly biodegradable. The product has not been tested. The statement has been derived from substances/products of a similar structure of composition.

Bioaccumulative potential
Bioaccumulation potential: Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

13. Section 13 – Disposal Considerations
Waste Disposal: Dispose of in a licensed facility. Do not discharge into waterways or sewer systems without proper authorization. Dispose in accordance with all applicable regulations.

Container Disposal: Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

13. Section 14 – Transport Information
DOT/IATA:
Proper Shipping Name: Amines, liquid, corrosive, n.o.s., (Polyoxyprolylenediamine)
UN Number: UN 2735
Class: 8
Packing Group: III

14. Section 15 – Regulatory Information
US Federal Regulations: SARA Sections 302 and 313
This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Titled III, Section 313.

SARA Sections 311 and 312
Acute Health Hazard, Chronic Health Hazard

MA, PA, NJ Right-to-Know
4-Nonylphenol, branched 84852-15-3 > 10%

United States TSCA Inventory (TSCA):
All components of this product are in compliance with the inventory listing requirements of the US Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
California Prop. 65: This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm.

Assessment of the hazard classes according to UN GHS criteria (most recent version):

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute Toxicity</strong></td>
<td>4 (oral)</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td><strong>Skin Corr./Irrit.</strong></td>
<td>1B</td>
<td>Skin corrosion/irritation</td>
</tr>
<tr>
<td><strong>Eye Dam./Irrit</strong></td>
<td>1</td>
<td>Serious eye damage/eye irritation</td>
</tr>
<tr>
<td><strong>Reproductive Toxicity</strong></td>
<td>2</td>
<td>Reproductive toxicity</td>
</tr>
<tr>
<td><strong>Aquatic Acute</strong></td>
<td>2</td>
<td>Hazardous to the aquatic environment</td>
</tr>
<tr>
<td><strong>Aquatic Chronic</strong></td>
<td>2</td>
<td>Hazardous to the aquatic environment</td>
</tr>
</tbody>
</table>

16. Section 16 – Other Information

The information provided herein was believed by KSRESIN (Kreative Surfaces LLC.) to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and determine the suitability of the product for its intended use. All products supplied by KSRESIN are subject to KSRESIN's terms and conditions of sale. KSRESIN MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERING THE PRODUCT OR THE MERCHANTABILITY OF ANY INFORMATION PROVIDED BY KSRESIN, except that the product shall conform to KSRESIN specifications. Nothing contained herein constitutes an offer for the sale of any product.