1. Product Identification

**Product name**: MirrorCast Hardener, Part B

**SDS Number**: 0530800

**Product type**: Epoxy curing agent.

**Recommended use of the chemical and restrictions on use**: Directed at, but not limited to, filling cracks and voids in wood.

**Restrictions**: None known.

**Manufacturer/Supplier information**

- **Company name**: SYSTEM THREE RESINS, INC.
- **Address**: 8517 Commerce Place Dr NE Lacey, WA 98516 United States
- **Telephone**: 1-253-333-8118
- **Website**: www.systemthree.com
- **Email**: support@systemthree.com
- **Emergency Contact**: CHEMTEL (U.S. and CANADA) 1-800-704-9215 CHEMTEL (Outside the U.S.) – Call Collect accepted +1-360-256-7365

2. Hazard(s) Identification

**Classification of substance or mixture/Signal Word**

- **DANGER**
  - Skin Corrosion/Irritation – Category 1
  - Serious Eye Damage/Eye Irritation – Category 1
  - Skin Sensitization – Category 1
  - Specific Target Organ Toxicity (Single Exposure) [Respiratory tract irritation] – Category 3
  - Acute Aquatic Toxicity – Category 3
  - Chronic Aquatic Toxicity – Category 3

**GHS Label Elements**

- **Hazard Pictograms**

**Hazard Statements/Classification of substance or mixture**

- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H402 Harmful to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Precautionary Statements**

- **Prevention**
  - P260 Do not breathe dusts/mists/vapors/spray.
  - P264 Wash hands thoroughly after handling.
  - P271 Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves. Wear eye or face protection.

Response

IF SWALLOWED: Rinse mouth. Do not induce vomiting.

IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

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

Take off contaminated clothing and wash it before reuse.

Collect spillage.

Store locked up.

Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified (HNOC) None Available.

3. Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Content (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxypolyethylene diamine</td>
<td>9046-10-0</td>
<td>70 – 75%</td>
</tr>
<tr>
<td>Cycloaliphatic amines</td>
<td>Proprietary</td>
<td>15 – 20%</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>100-51-6</td>
<td>10 – 15%</td>
</tr>
<tr>
<td>Isophoronediamine</td>
<td>2855-13-2</td>
<td>1 – 5%</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

4. First-Aid Measures

**Skin contact**

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

**Eye contact**

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Suitable emergency eye wash facility should be available in work area. Get medical attention immediately if irritation persists.

**Ingestion**

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Seek medical attention.

**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Assist in breathing if necessary. Immediate attention required.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**

Symptomatic and supportive therapy as needed. Medical monitoring for at least 24 hours.

**Specific treatments**

No specific treatment.
## 5. Fire-Fighting Measures

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Alcohol-resistant foam, dry chemical, water fog or carbon dioxide (CO2).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>None known.</td>
</tr>
<tr>
<td>Specific hazards arising from the chemical</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated must be contained and prevented from being discharged to any waterway, sewer or drain.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Decomposition products may include the following materials: Carbon dioxide, Carbon monoxide, Nitrogen oxides</td>
</tr>
<tr>
<td>Special protective actions for fire-fighters</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>Special protective equipment for fire-fighters</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
<tr>
<td>Further information</td>
<td>Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.</td>
</tr>
</tbody>
</table>

## 6. Accidental Release Measures

| Personal precautions | Avoid inhalation. Avoid contact with the skin, eyes, and clothing. |
| Emergency procedures | If material is spilled, avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. |
| Methods and materials for containment/cleanup | Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. |
| Environmental precautions | 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 (sewers, waterways, soil or air). |

## 7. Handling and Storage

| Precautions for safe handling | Ensure adequate ventilation. Avoid exposure – obtain instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Protection against fire and explosion: Prevent electrostatic charge – sources of ignition should be kept well clear – fire extinguishers should be kept handy. |
| Precautions/Recommendations for safe/proper storage | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |
8. Exposure Controls/Personal Protection

| Occupational Exposure Limits                      | None established.          |
| Appropriate engineering controls                  | Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. |
| Environmental exposure controls                   | Use appropriate containment to avoid environmental contamination. Do not allow spill to enter sewers or waterways. |
| Individual protection measures/Personal protective equipment |
| Eye/face protection | Splash-proof goggles or safety spectacles with side shields are recommended. Always wear eye protection when sanding cured epoxy resins to avoid dust in eyes. |
| Hand protection | Always wear impervious gloves: butyl rubber, nitrile rubber, Neoprene, PVC disposable gloves |
| Skin protection | Wear clean, body-covering clothing to avoid skin contact. |
| Respiratory protection | Wear a NIOSH-certified (or equivalent) organic vapor respirator. |
| Special instructions for protection and hygiene | Discard contaminated leather articles. Remove contaminated clothing. Wash at the end of each work shift and before eating smoking or using the toilet. Provide readily accessible eye wash stations and safety showers. |

9. Physical and Chemical Properties

| Chemical family | Amine curing agent |
| Appearance | Clear liquid |
| Physical State |
| Form | Liquid |
| Color | Clear |
| Odor | Amine-like |
| Density (Specific Gravity) | 8.10 lb/gal (0.97) |
| Viscosity | 28 CPS @ 25°C |
| pH | Alkaline |
| Melting point/freezing point | Data not available |
| Initial boiling point and boiling range | Data not available |
| Flash point | Data not available |
| Evaporation rate | Slower than ether |
| Flammability (solid, gas) | Data not available |
| Upper/lower flammability limit (by volume) | Data not available |
| Material VOC | None |
| Vapor density | Heavier than air |
| Relative density | Not determined |
| Solubility in water | Data not available |
| Partition coefficient: n-octanol/water | Data not available |
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available

10. Stability and Reactivity

Reactivity: None
Chemical Stability: Stable
Possibility of hazardous reactions: Hazardous polymerization will not occur.
Conditions to avoid: Epoxy resins and epoxy resin hardeners react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in large mass as the ensuing exotherm may result in heat and smoke, resulting in hazardous decomposition products.

Incompatible materials: Strong oxidizing agents and strong acids.
Hazardous decomposition products: Nitrogen oxides, carbon oxides.
Other hazards: None known.

11. Toxicological Information

Acute Health Hazard (components): No comprehensive data (ingestion, inhalation, dermal) on mixture (product).

<table>
<thead>
<tr>
<th>Component</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxypropylenediamine</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2,885 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>2,979 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation</td>
<td>Rat</td>
<td>&gt;0.74 mg/l</td>
<td>8 h</td>
</tr>
<tr>
<td>Isophoronediamine</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1,030 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1620 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation</td>
<td>Rat</td>
<td>&gt;4178 mg/m3</td>
<td>4 h, aerosol</td>
</tr>
</tbody>
</table>

Irritation/Corrosion (components): Classifies as Skin corrosion Category 1 per GHS calculations of additivity. Classifies as Serious eye damage Category 1 per GHS calculations of additivity.

<table>
<thead>
<tr>
<th>Component</th>
<th>Result</th>
<th>Species</th>
<th>Test</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxypropylenediamine</td>
<td>Skin-Corrosive</td>
<td>-</td>
<td>-</td>
<td>1-4 h</td>
</tr>
<tr>
<td></td>
<td>Eyes-Corrosive</td>
<td>Rabbit</td>
<td>405 OECD Test Guideline</td>
<td>-</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>Irritant</td>
<td>Rabbit</td>
<td>Eye</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization: No data is available for this product.
Mutagenicity: No data is available for this product.
Carcinogenicity: No data is available for this product.
Reproductive Toxicity: No data is available for this product.
Teratogenicity: No data is available for this product.
Specific target organ toxicity (single exposure): No data is available for this product.

<table>
<thead>
<tr>
<th>Component</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isophoronediamine</td>
<td>Category 3</td>
<td>-</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>
Specific target organ toxicity (repeated exposure)
No data is available for this product.

Aspiration hazard
No data is available for this product.

Potential acute health effects

Eye Contact
Causes serious eye damage.

Inhalation
May cause respiratory irritation.

Skin Contact
Causes severe skin burns.

Ingestion
Harmful if swallowed. May cause burns to mouth, throat, and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye Contact
Adverse symptoms may include the following:
- Pain or irritation
- Watering
- Redness

Inhalation
Adverse symptoms may include the following:
- Respiratory tract irritation
- Coughing

Skin Contact
Adverse symptoms may include the following:
- Pain or irritation
- Redness
- Blistering may occur

Ingestion
Adverse symptoms may include the following:
- Stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Potential chronic health effects

General
Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity
No known significant effects or critical hazards.

Mutagenicity
No known significant effects or critical hazards.

Teratogenicity
No known significant effects or critical hazards.

Developmental effects
No known significant effects or critical hazards.

Fertility effects
No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates (ATEmix)

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2537.2 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>2947.2 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>281.03 mg/l</td>
</tr>
</tbody>
</table>

12. Ecological Information

Ecotoxicity
No information on the product itself.

<table>
<thead>
<tr>
<th>Component</th>
<th>Test</th>
<th>Species</th>
<th>Result</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
<td>Test</td>
<td>Period</td>
<td>Result</td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------------------------------</td>
<td>---------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Polyoxypolylenediamine</td>
<td>OECD 301B Ready Biodegradability –</td>
<td>28 days</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CO2 Evolution Test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>Acute LC50 460 mg/l</td>
<td>96 h</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute EC50 230 mg/l</td>
<td>48 h</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 310 mg/l</td>
<td>72 h</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and degradability**
No information on the product itself.

**Bioaccumulative Potential**
No information on the product itself.

<table>
<thead>
<tr>
<th>Component</th>
<th>LogPow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxypolylenediamine</td>
<td>1.34</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>1.05</td>
<td>1.37 (calculated)</td>
<td>-</td>
</tr>
</tbody>
</table>

**Mobility in Soil**
No information on the product itself.

**Other adverse effects**
No know significant effects or critical hazards.

### 13. Disposal Considerations

**Waste from residues/ unused products**
The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Product should not be allowed to enter drains, water courses or the soil; dispose of this material and its containers in a safe way. Contact supplier if guidance is required.

**Contaminated packaging**
Dispose of container and unused contents in accordance with federal, state and local requirements.

### 14. Transport Information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN/NA number</th>
<th>Proper Shipping Name</th>
<th>Classes/*PG</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>UN2735</td>
<td>Amines, liquid, corrosive, n.o.s. (Polyetheramine)</td>
<td>Class 8 III</td>
<td></td>
</tr>
<tr>
<td>TDG</td>
<td>UN2735</td>
<td>Amines, liquid, corrosive, n.o.s. (Polyetheramine)</td>
<td>Class 8 III</td>
<td></td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>UN2735</td>
<td>Amines, liquid, corrosive, n.o.s. (Polyetheramine)</td>
<td>Class 8 III</td>
<td></td>
</tr>
</tbody>
</table>
IATA UN2735 Amines, liquid, corrosive, n.o.s. (Polyetheramine) Class 8 III

*PG: Packing group

Special precautions for user: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. Regulatory Information

UNITED STATES

U.S. Federal Regulations

United States – TSCA 12(b) – Chemical export notification: None Required.
United States – TSCA 5(a)2 – Final significant new use rules: Not Listed.
United States – TSCA 5(a)2 – Proposed significant new use rules: Not Listed.
United States – TSCA 5€ – Substance consent order: Not listed.

Clean Air Act – Ozone Depleting Substances (ODS)
This product does not contain nor is it manufactured with ozone depleting substances.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)
None known

Pennsylvania – RTK
None known.

California Prop. 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

EPA SARA 302 Extremely Hazardous Substances
None required.

EPA SARA 302/304/311/312 Hazardous Chemicals
Acute Health Hazard

SARA 313
None.

Form R – Reporting requirements
None.

CERCLA Hazardous substances
None.

United States inventory (TSCA 8b)
All components are listed or exempted.

CANADA

WHMIS (Canada)

Class D-2B: Material causing other toxic effects (Toxic).
Class E: Corrosive material.

Canadian NPRI
None required.

CEPA Toxic substances
None required.

INTERNATIONAL REGULATIONS

International Lists

Australia inventory (AICS): All components are listed or exempted.
Canada inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
Japan inventory: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
New Zealand inventory (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): All components are listed or exempted.

16. Other Information, Including Date of Preparation or Last Revision

HMIS Rating

Health 3
Flammability 1
Physical Hazard 0

Date of Preparation: January 22, 2020
Date of Last Revision: September 30, 2019
Revision #: 6.0
Prepared by: System Three Resins Inc.

The information contained herein is based on the data available to us and is believed to be correct. However, System Three Resins, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. System Three assumes no responsibility for injury from the use of the product described herein.