### Section 1 - Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Product/Chemical Name:</th>
<th>EpoxAcast ® 670 HT</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Use:</td>
<td>Epoxy Tooling</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>Smooth-On Inc., 2000 St. John St., Easton PA 18042</td>
</tr>
<tr>
<td></td>
<td>Phone (610) 252-5800, FAX (610) 252-6200</td>
</tr>
<tr>
<td>Emergency Contact:</td>
<td>Chem-Tel</td>
</tr>
<tr>
<td>Domestic</td>
<td>800-255-3924</td>
</tr>
<tr>
<td>International</td>
<td>813-248-0585</td>
</tr>
</tbody>
</table>

### Section 2- Hazards Identification


### Section 3 - Composition / Information on Ingredients

No hazardous ingredients

### Section 4 - First Aid Measures

- **Inhalation:** Remove source(s) of contamination and move victim to fresh air.
- **Eye Contact:** Flush eyes with plenty of water. If irritation persists, seek medical attention.
- **Skin Contact:** In case of skin contact, wash thoroughly with soap and water; remove contaminated clothing and launder before reuse.
- **Ingestion:** Do not induce vomiting unless instructed by a physician. Contact physician immediately.

*After first aid, get appropriate in-plant, paramedic, or community medical support.*

### Section 5 - Fire-Fighting Measures

- **Flash Point:** >280 °F (138 °C)
- **Flash Point Method:** PMCC
- **Flammability Classification:** Non-Flammable
- **Extinguishing Media:** Foam, Dry Chemical, and Carbon Dioxide
- **Unusual Fire or Explosion Hazards:** None
- **Hazardous Combustion Products:** Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.
- **Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.
- **Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.
Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Dike and contain spill; absorb or scrape up excess into suitable container for disposal. Stop or reduce discharge if it can be done safely.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

**Handling Precautions:** Use good general housekeeping procedures.

**Storage Requirements:** Store in cool dry, well-ventilated area.

Section 8 - Exposure Controls / Personal Protection

**Respiratory Protection:** Follow OSHA respirator regulations 29 CFR 1910.134 and European Standard EN 149; wear an MSHA/NIOSH or European Standard EN149 approved respirator.

**Protective Clothing/Equipment:** Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

**Physical State:**
- **Appearance and Odor:** Off-white viscous liquid, mild odor
- **Vapor Pressure:** None (Polymeric Resin)
- **Vapor Density (Air=1):** None (Polymeric Resin)
- **Specific Gravity (H2O=1, at 4 °C):** 1.4
- **Water Solubility:** negligible
- **Boiling Point:** None (Polymeric Resin)
- **Freezing/Melting Point:** None (Polymeric Resin)
- **Evaporation Rate:** None (Polymeric Resin)
- **Viscosity:** 200 poise

Section 10 - Stability and Reactivity

**Stability:** This product is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Strong oxidizing agents, strong Lewis or mineral acids.

**Conditions to Avoid:** Mixing with Amines under uncontrolled conditions.

**Hazardous Decomposition Products:** Thermal oxidative decomposition can produce: Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.
### Section 11 - Toxicological Information

- **Eye Effects:** Irritation
- **Skin Effects:** Irritation
- **Carcinogenicity:** None Determined
- **Mutagenicity:** None Determined
- **Teratogenicity:** None Determined

### Section 12 - Ecological Information

None Established

### Section 13 - Disposal Considerations

**Disposal:** Must be disposed of in accordance with applicable Federal, state and local regulations.

### Section 14 - Transport Information

<table>
<thead>
<tr>
<th>DOT</th>
<th>IATA</th>
<th>IMDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Regulated</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>

### Section 15 - Regulatory Information

**United States Regulations**

**EPA Regulations:**

- RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)
- SARA Toxic Chemical (40 CFR 372.65): None

This product does not contain chemicals that are subject to release reporting requirements under section 313 of SARA Title III.

**TSCA Inventory Status (40 CFR710):** All components of this formulation are listed in the TSCA Inventory.

**California Proposition 65:** This product does not intentionally contain any chemicals which have been identified by the state of California to cause cancer, birth defects or other reproductive harm.

**CANADA Regulations**

- WHMIS Identification: Not controlled
- CDSL/NDL (Canadian Domestic Substance List/Non Domestic Substance List): All are Listed

**Labeling according to EEC Directive**

No special packaging or labeling requirements.
Section 16 - Other Information

Disclaimer: The information contained in this MSDS is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.

Material Safety Data Sheet
EpoxAcast® 670 HT
MSDS No. 418
Date Of Preparation: March 8, 2011
Revision: 0001

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: HT Hardener
Other Designations: Curing Agent, Epoxy
General Use: Laminating, Adhesive and Casting Resin
Manufacturer: Smooth-On Inc., 2000 St. John St., Easton PA 18042
Phone (610) 252-5800, FAX (610) 252-6200
Emergency Contact: Chem-Tel
Domestic 800-255-3924
International 813-248-0585

Section 2- Hazards Identification

Hazard Designation:

Europe
Xn: Harmful
C: Corrosive
N: Dangerous for the environment

Canada

Risk Phrases pertaining to particular dangers
R21/22: Harmful in contact with skin and if swallowed.
R34: Causes burns.
R36: Irritating to eyes.
R43: May cause skin sensitization by contact.
R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53: Very toxic to aquatic organisms may cause long term adverse effects in the aquatic environment.

Classified according to Articles 6 & of Directive 1999/45/EC

Section 3 - Hazards Identification

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TWA</th>
<th>Exposure Limits</th>
<th>Hazard Designation</th>
<th>Weight Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethyltoluenediamine</td>
<td>None</td>
<td>None</td>
<td>Xn</td>
<td>80-90</td>
</tr>
<tr>
<td>CAS Number: 68479-98-1</td>
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<td>EINECS Number: 270-877-4</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>1 PPM</td>
<td>1 PPM</td>
<td>C</td>
<td>10-20</td>
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<tr>
<td>CAS Number: 111-40-0</td>
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<tr>
<td>EINECS Number: 203-865-4</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 4 - First Aid Measures

Inhalation: Remove too fresh air; if breathing is labored seek medical attention.
Eye Contact: Flush with water for 15 minutes; seek medical attention
Skin Contact: remove with soap and water: if redness or rash develops seek medical attention: Launder contaminated clothing before reuse.
Ingestion: do not induce vomiting; seek medical attention

After first aid, get appropriate in-plant, paramedic, or community medical support.
Section 5 - Fire-Fighting Measures

Flash Point: >200°F (93°C)
Flammability Classification: Combustible Liquid, Class III
Extinguishing Media: Foam, Dry Chemical, and Carbon Dioxide
Unusual Fire or Explosion Hazards: None
Hazardous Combustion Products: May generate Ammonia gas, Oxides of Nitrogen and Carbon when burned

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures
Containment: Dike and contain for later disposal. Do not release into sewers or waterways.
Cleanup: Cover minor spills with sodium bisulfate to neutralize and reduce vapors. Spray with water. Place in metal containers for recovery or disposal. Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Avoid prolonged or repeated eye and skin contact. Avoid breathing vapors and use only with adequate ventilation. Use good general housekeeping procedures.
Storage Requirements: Keep away from oxidizers. Store in Closed containers. Use only with adequate ventilation.

Section 8 - Exposure Controls / Personal Protection

Respiratory Protection: Follow OSHA respirator regulations 29 CFR 1910.134 and European Standard EN 149; wear an MSHA/NIOSH or European Standard EN149 approved respirator. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas

Protective Clothing/Equipment: Wear chemically protective gloves, boots, and aprons to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.
Section 9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Amber to reddish brown liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Ammonia odor</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>None Determined</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Specific Gravity (H₂O=1, at 4 °C)</td>
<td>0.984</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Negligible</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>390°F (199°C)</td>
</tr>
<tr>
<td>% Volatile</td>
<td>None Determined</td>
</tr>
<tr>
<td>Freezing/Melting Point</td>
<td>None Determined</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>None Determined</td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity

Stability: This material is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: Strong oxidizing agents, strong Lewis or mineral acids.

Conditions to Avoid: Mixing with epoxies under uncontrolled conditions.

Hazardous Decomposition Products: Thermal oxidative decomposition of can produce: Ammonia gas, Oxides of Nitrogen and Carbon when burned. Combustion of product under oxygen-starved conditions can be expected to produce numerous toxic products including nitriles, cyanic acid, isocyanates, cyanogens, nitrosamines, amides, and carbamates.

Section 11 - Toxicological Information

Eye Effects: will cause burns
Skin Effects: will cause burns
Acute Toxicity Effects Data: No Data

Section 12 - Ecological Information

Not Determined

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>DOT</th>
<th>IATA</th>
<th>IMDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Name: Diethylenetriamine</td>
<td>Shipping Name: Diethylenetriamine</td>
<td>Shipping Name: Diethylenetriamine</td>
</tr>
<tr>
<td>UN #: 2079</td>
<td>UN #: 2079</td>
<td>UN #: 2079</td>
</tr>
<tr>
<td>Hazard Class: 8</td>
<td>Hazard Class: 8</td>
<td>Hazard Class: 8</td>
</tr>
<tr>
<td>Packing Group II</td>
<td>Packing Group II</td>
<td>Packing Group II</td>
</tr>
<tr>
<td>Label: Corrosive</td>
<td>Label: Corrosive</td>
<td>Label: Corrosive</td>
</tr>
</tbody>
</table>
Section 15 - Regulatory Information

SARA 312 (40 CFR #70) Hazard Classification: Acute Health Hazard, Chronic Health Hazard

TSCA Inventory Status (40CFR710): All components of this formula are on the TSCA inventory

California Proposition 65: This product does not intentionally contain any chemicals which have been identified by the state of California to cause cancer, birth defects or other reproductive harm.

CANADIAN REGULATIONS:
WHMIS Identification: Class D-1B: Material causing immediate and serious toxic effects (Toxic).
CDSL/NDL (Canadian Domestic Substance List/Non Domestic Substance List): Listed on DSL

Labeling according to EEC Directive

<table>
<thead>
<tr>
<th>Risk Phrases</th>
<th>Symbol(s) Required for EU Label</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>R21/22: Harmful in contact with skin and if swallowed.</td>
<td><img src="image" alt="Xn: Harmful" /></td>
<td>S1/2: Keep locked up and out of reach of children</td>
</tr>
<tr>
<td>R34: Causes burns.</td>
<td><img src="image" alt="C: Corrosive" /></td>
<td>S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice</td>
</tr>
<tr>
<td>R36: Irritating to eyes.</td>
<td></td>
<td>S36/37/39: Wear suitable protective clothing, gloves, and eye face/protection.</td>
</tr>
<tr>
<td>R43: May cause skin sensitization by contact.</td>
<td></td>
<td>S45: In case of an accident or if you feel sick, seek medical attention.</td>
</tr>
<tr>
<td>R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.</td>
<td><img src="image" alt="N: Dangerous for the environment" /></td>
<td>S60: The material and its container must be disposed as a hazardous waste.</td>
</tr>
<tr>
<td>R50/53: Very toxic to aquatic organisms may cause long term adverse effects in the aquatic environment.</td>
<td></td>
<td>S61: Avoid release to the environment.</td>
</tr>
</tbody>
</table>

16 - Other Information

Disclaimer: The information contained in this MSDS is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.