



# SAFETY DATA SHEET

## 1. Product Identification

---

Product name	SilverTip® Coating and Laminating Resin
SDS Number	0900A
Product type	Epoxy polymer mixture.
Recommended use of the chemical and restrictions on use	Directed at, but not limited to, the laminating and coating of fiber composite and wood
Restrictions	None known.
<b>Manufacturer/Supplier information</b>	
Company name	SYSTEM THREE RESINS, INC.
Address	3500 W. Valley Hwy North Suite 105 Auburn, WA 98001-2436 United States
Telephone	1-253-333-8118
Website	www.systemthree.com
Email	support-08@systemthree.com
Emergency Contact	CHEMTREC (U.S. and CANADA) 1-800-424-9300 CHEMTREC (Outside the U.S.) 1-703-527-0585

## 2. Hazard(s) Identification

---

Classification of substance or mixture/Signal word

WARNING.

GHS Label Elements  
Hazard Pictograms



Hazard statements

H302 Acute Toxicity  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.

Precautionary Statements  
Prevention

P280 Wear protective gloves. Wear eye or face protection.  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.

Response

P308 + P313 If exposed or concerned: Get medical attention.

Storage

P401 Store above 32 °F / 0 °C

Disposal

P501 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

---

Chemical Name	CAS Number	Content (%)
Diglycidyl Ether of Bisphenol A	25068-38-6	70 – 80 %
Benzyl Alcohol	100-51-6	10 – 15 %
Alkylglycidyl Ether	17557-23-2	10 – 15 %

### 4. First-Aid Measures

---

<b>Inhalation</b>	Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.
<b>Skin contact</b>	Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned. Contaminated leather articles (shoes) cannot be decontaminated and should be destroyed.
<b>Eye contact</b>	Flush with water for 15 minutes holding eye lids open. Seek medical attention.
<b>Ingestion</b>	Do not give liquids if victim is unconscious or very drowsy. Otherwise, give no more than 2 glasses of water and induce vomiting by giving 2 tablespoons syrup of ipecac (1 tablespoon and 1 glass of water for child). If ipecac is unavailable, give 2 glasses of water and induce vomiting by touching finger to back of throat. Keep head below hips while vomiting. Get medical attention.
<b>Most important symptoms/effects, acute and delayed</b>	Burns. Irritation. Pre-existing skin conditions may be aggravated by prolonged or repeated contact. Persons with sensitive airways (e.g., asthmatics) may be sensitive to vapors.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptoms as they appear.

### 5. Fire-Fighting Measures

---

<b>Suitable extinguishing media</b>	Foam, carbon dioxide, dry chemical, water fog.
<b>Unsuitable extinguishing media</b>	None known
<b>Specific hazards arising from the chemical</b>	Potential skin irritation.
<b>Special protective equipment and precautions for fire-fighters</b>	When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire-exposed containers. Toxic fumes may be evolved when this substance is burned.
<b>Fire-fighting equipment/instructions</b>	Full fire suit and self-contained breathing apparatus.
<b>Specific methods</b>	Water spray may be used to cool fire-exposed containers. Toxic fumes may be evolved when this substance is burned.
<b>General fire hazards</b>	Epoxy in mass can create exotherm.

### 6. Accidental Release Measures

---

<b>Personal precautions</b>	Wear proper personal protective equipment (PPE). Avoid direct contact with material.
<b>Protective equipment</b>	Proper PPE includes: disposable gloves, eye protection and skin protection.
<b>Emergency procedures</b>	If materials 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 spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust or other absorbent, and shoveled into disposal container.

**Environmental precautions**

Skin sensitizer, harmful to aquatic life.

## 7. Handling And Storage

---

**Precautions for safe handling**

Always wear protective, disposable gloves when handling epoxy products to prevent exposure.

**Precautions/Recommendations for safe/proper storage**

Store epoxy products in temperature stable environment, out of the reach of pets or children. Securely fasten container lids and tops, and prevent products from sitting and below freezing temperatures.

**Chemical incompatibilities**

None known.

## 8. Exposure Controls/Personal Protection

---

**Permissible exposure limit (OSHA)**

None established

**Threshold limit value (ACGIH)**

None established

**Biological Toxicology**

Not available

**Appropriate engineering controls**

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**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 to avoid dust in eyes.

**Hand protection**

Always wear impervious gloves, neoprene, vinyl or rubber.

**Skin protection**

Wear clean, body-covering clothing to avoid skin contact.

**Respiratory protection**

Use a NIOSH approved respiratory device when sanding cured epoxy to prevent dust in lungs.

**General hygiene during/after use**

Wear gloves at all times when handling product, avoid direct contact with skin. When finished using product, dispose of gloves properly and wash hands with warm, soapy water.

## 9. Physical And Chemical Properties

---

**Chemical family**

Epoxy Resin

**Appearance**

Clear viscous liquid

**Physical State**

Epoxy polymer mixture

**Form**

Liquid

**Color**

Water clear

**Odor**

Mild

**Odor threshold**

Not determined

**Density (Specific gravity)**

9.47 lb/gal (1.1-1.3)

**Viscosity**

700 cps @ 25°C

<b>pH</b>	Data not available
<b>Melting point/freezing point</b>	Data not available
<b>Initial boiling point and boiling range</b>	Data not available
<b>Flash point</b>	>300°F, Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Slower than ether
<b>Flammability (solid, gas)</b>	Data not available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper flammability limit (by volume)</b>	N/A
<b>Lower flammability limit (by volume)</b>	N/A
<b>Material VOC</b>	None
<b>Vapor density</b>	Heavier than air
<b>Relative density</b>	Not determined
<b>Solubility</b>	Negligible, in water
<b>Partition coefficient: n-octanol/water</b>	3
<b>Auto-ignition temperature</b>	300°C (572.00°F)
<b>Decomposition temperature</b>	Not available

## 10. Stability And Reactivity

---

<b>Reactivity</b>	None
<b>Chemical stability</b>	Stable
<b>Possibility of hazardous reactions</b>	Hazardous polymerization will not occur
<b>Conditions to avoid</b>	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.
<b>Incompatible materials</b>	Strong oxidizing agents, Lewis and mineral acids.
<b>Hazardous decomposition products</b>	Oxides of carbon, aldehydes, acids.

## 11. Toxicological Information

---

### Information of likely routes of exposure

<b>Ingestion</b>	LD50 Oral, Rat: 11,400 mg/kg LD50 Dermal, Rat: 2,200 mg/kg
<b>Inhalation</b>	Not available.
<b>Skin contact</b>	Skin – Erythema/Eschar 404 Acute Dermal Irritation/Corrosion, Rabbit: 1.5 – 2. Skin – Edema 404 Acute Dermal Irritation/Corrosion, Rabbit: 1.0 – 1.5. Skin – Moderate irritant, Rabbit: 24 hrs. Skin – Severe irritant, Rabbit: 24 hrs.
<b>Eye contact</b>	Eyes – 405 Acute Eye Irritation/Corrosion, Rabbit: 0. Eyes – Redness of the conjunctive, Rabbit: 0.7. Eyes – Mild irritant: N/A.

**Symptoms related to the physical, chemical, and toxicological characteristics**

<b>Ingestion</b>	No specific data.
<b>Inhalation</b>	Adverse symptoms may include the following: respiratory tract infection, coughing.
<b>Skin contact</b>	Adverse symptoms may include the following: irritation.
<b>Eye contact</b>	Adverse symptoms may include the following: pain or irritation, watering, redness.
<b>Information on toxicology</b>	Not available.

## 12. Ecological Information

---

### Ecotoxicity

Product	Result	Species	Exposure
<b>Diglycidyl Ether of Bisphenol A Resin</b>	Acute LC50 1.3 mg/l – 203 Fish, Acute Toxicity Test	Fish – Fish	96 h
	Acute EC50 2.1 mg/l – 202 Daphnia sp. Acute Immobilization Test and Reproduction Test	Aquatic invertebrates. Water Flea	48 h
	Acute NOEC 0.3 mg/l – 211 Daphnia Magna Reproduction Test	Aquatic invertebrates. Water Flea	21 d
	Acute LC50 > 11 mg/l	Aquatic plants – Algae	72 h

**Persistence and degradability** Not available

### Bioaccumulative potential

**Diglycidyl Ether of Bisphenol A Resin** **LogPow** – 3, **BCF** – NA, **Potential** – Low.

**Mobility in soil** Not available.

**Other adverse effects** No known significant effects or critical hazards

## 13. Disposal Considerations

---

**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. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust, or other absorbent, and shoveled into disposal containers.

**Waste Disposal Method** Waste is not hazardous by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local regulations.

## 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.

### International Transport Regulations

Regulatory information	UN/NA number	Proper Shipping Name	Classes/*PG	Reportable Quantity (RQ)
<b>US DOT</b>		Non-regulated		
<b>TDG</b>		Non-regulated		

<b>IMO/IMDG</b>	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (LIQUID EPOXY RESIN)	Class 9 III
<b>IATA (Cargo)</b>	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (LIQUID EPOXY RESIN)	Class 9 III

**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 12(b) – Proposed significant new use rules:** None Required.  
**United States – TSCA 5(e) – Substance consent order:** Not listed.

#### California Prop. 65

This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

#### United States inventory (TSCA 8b)

All components are listed or exempted

### CANADA

#### WHMIS (Canada)

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

#### 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.  
**Japan inventory:** All components are listed or exempted.  
**China inventory (IECSC):** All components are listed or exempted.

## 16. Other Information, Including Date Of Preparation Or Last Revision

---

<b>Date of Preparation</b>	March 11, 2015
<b>More Information</b>	1-253-333-8118
<b>Prepared By</b>	W. Smoot

**1. Product Identification**

---

<b>Product name</b>	SilverTip <sup>®</sup> Fast Hardener Part B	
<b>SDS Number</b>	0900B	
<b>Product type</b>	Curing Agent	
<b>Manufacturer/Supplier information</b>		
<b>Company name</b>	SYSTEM THREE RESINS, INC.	
<b>Address</b>	3500 W. Valley Hwy, Suite Suite 105 Auburn, WA 98991-2436 United States	
<b>Telephone</b>	1-253-333-8118	
<b>Website</b>	www.systemthree.com	
<b>Email</b>	support-08@systemthree.com	
<b>Emergency Contact</b>	CHEMTREC (U.S. and CANADA)	1-800-424-9300
	CHEMTREC (Outside the U.S.)	1-703-527-0585

**2. Hazard(s) Identification**

---

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

DANGER

**GHS Label Elements**  
**Hazard Pictograms**



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

H302 Harmful if swallowed  
H314 Corrosive to skin  
H315 May cause sensitization by skin contact.  
H361fd Respiratory irritant  
H400 Acute Hazard to aquatic life  
H410 Chronic hazard to aquatic life

**Precautionary statements**

**Precautionary Statements**  
**Prevention**

P280 Wear protective gloves. Wear eye or face protection.  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.

**Response**

P308 + P313 If exposed or concerned: Get medical attention.

**Storage**

P401 Store at room temperature in a well ventilated area.

**Disposal**

P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.

### 3. Composition/Information On Ingredients

---

Chemical Name	CAS Number	Content (%)
Aliphatic Amines	Trade Secret	60 – 70%
Alkyl Phenols	Trade Secret	15 – 20%
Benzyl Alcohol	100-51-6	15 – 20%
Aromatic Amine	1477-55-0	5 – 10%

### 4. First-Aid Measures

---

<b>General advice</b>	Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
<b>Skin contact</b>	Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Flush immediately with copious amounts of water. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing.
<b>Eye contact</b>	Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical attention. If medical care is not promptly available, continue to irrigate for one hour.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side
<b>Inhalation</b>	Move to fresh air.

### 5. Fire-Fighting Measures

---

<b>Suitable extinguishing media</b>	Alcohol-resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical Water Fog
<b>Specific hazards arising from the chemical</b>	Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
<b>Special protective equipment and precautions for fire-fighters</b> <b>Fire-fighting equipment/instructions</b>	Avoid contact with skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
<b>Further information</b>	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.

### 6. Accidental Release Measures

---

<b>Personal precautions</b>	Wear proper protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing.
<b>Emergency procedures</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Construct a dike to prevent spreading.



<b>Methods and materials for containment/cleanup</b>	Stop spill at source, dike area to prevent spreading, place in proper waste container. Contact Chemtrec for further instruction. Approach suspected leak areas with caution.
<b>Environmental precautions</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways.

## 7. Handling And Storage

---

<b>Precautions for safe handling</b>	Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.
<b>Precautions/Recommendations for safe/proper storage</b>	Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep from freezing.

## 8. Exposure Controls/Personal Protection

---

<b>Engineering controls</b>	Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.
<b>Individual protection measures/Personal protective equipment</b>	
<b>Eye/face protection</b>	Splash-safe glasses
<b>Hand protection</b>	Butyl-rubber, Nitrile rubber, Neoprene Gloves, PVC disposable gloves, Impervious gloves.
<b>Skin protection</b>	Impervious clothing, Full rubber suit (rain gear), Rubber or plastic boots, Slicker suit.
<b>Environmental exposure controls</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter sewers or waterways.
<b>Special instructions for protection and hygiene</b>	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

---

<b>Chemical family</b>	Amine Curing Agent
<b>Appearance</b>	Clear liquid
<b>Physical State</b>	Amine mixture
<b>Form</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Ammoniacal
<b>Relative density</b>	0.9 – 1.0
<b>Viscosity</b>	525 cps at 77 °F (25 °C)
<b>pH</b>	Alkaline
<b>Initial boiling point and boiling range</b>	NA
<b>Flash point</b>	NA

Vapor pressure

NA

## 10. Stability And Reactivity

---

**Chemical Stability**

Stable under normal conditions.

**Incompatible materials**

Organic acids (i.e. acetic acid, citric acid, etc.).  
Mineral acids.  
Sodium hypochlorite.  
Oxidizing agents.

**Hazardous decomposition products**

Nitric acid  
Ammonia  
Aldehydes  
Nitrogen oxides (NO<sub>x</sub>)  
Nitrogen oxide can react with water vapors to form corrosive nitric acid.  
Carbon monoxide.  
Carbon dioxide (CO<sub>2</sub>).

## 11. Toxicological Information

---

<b>Acute Health Hazard (components)</b>	
*No comprehensive data (ingestion, inhalation, dermal) on mixture (product).	
<b>Sensitization</b>	May cause sensitization of susceptible persons by skin contact.
<b>Chronic Health Hazard</b>	Aquatic

## 12. Ecological Information

---

**Ecotoxicity**

**Aquatic toxicity**

No data on the product itself.

**Alkyl Phenols**

Aquatic Acute 1: 2.5 =< C < 25%  
Aquatic Chronic 1: 2.5 =< C < 25%

**Persistence and degradability**

No data on product itself.

## 13. Disposal Considerations

---

**Waste from residues/ unused products**

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

---

**DOT**

**UN/ID No.**

UN2735

**Proper shipping name**

Amines, liquid, corrosive, n.o.s., (4,4'-Methylenebiscyclohexanamine, Methylimidazole, 1-).

**Class or Division**

8

**Packing group**

III

Label(s) 8  
Marine Pollutant Yes

#### IATA

UN/ID No. UN2735  
Proper shipping name Amines, liquid, corrosive, n.o.s., (ethlyeneamine).

Class or Division 8  
Packing group III  
Label(s) 8  
Marine Pollutant Yes

**Note\*\*** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definitely of toxic to the aquatic environment. For more information contact System Three technical support.

#### IMDG

UN/ID No. UN2735  
Proper shipping name Amines, liquid, corrosive, n.o.s., (ethlyeneamine).

Class or Division 8  
Packing group III  
Label(s) 8  
Marine Pollutant Yes

**Note\*\*** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definitely of toxic to the aquatic environment. For more information contact System Three technical support

#### TDG

UN/ID No. UN2735  
Proper shipping name Amines, liquid, corrosive, n.o.s., (ethyleneamine).

Class or Division 8  
Packing group III  
Label(s) 8  
Marine Pollutant No

**Note\*\*** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment. For more information contact System Three technical support

#### Further Information

The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact System Three technical support.

## 15. Regulatory Information

---

#### UNITED STATES

**Toxic Substance Control Act (TSCA) 12(b) – Components:** None.

**OSHA Hazard Communication Standard (29 CFR 1910.1 200) Hazard Classes:** Corrosive. Sensitizer.

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

**EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification:** None

**EPA SARA Title III Section 313 (40 CFR 372) Component(s) above ‘de minimus’ level:** None.

**WHMIS Hazard Classification:** Class E Corrosive Material.

## INTERNATIONAL REGULATIONS

### International Lists

**USA inventory (TSCA 8b):** Included on inventory  
**EU (EINECS):** Included on EINECS inventory or polymer substance, monomers  
**Australia inventory (AICS):** Included on inventory  
**Canada inventory (DSL):** Included on inventory  
**Japan inventory (ENCS):** Included on inventory  
**China inventory (IECSC):** Included on inventory  
**South Korea inventory (ECL):** Included on inventory

## 16. Other Information, Including Date Of Preparation Or Last Revision

---

### HMIS Rating

Health	3
Flammability	1
Physical Hazard	0

**Date of Preparation** March 26, 2015

**More Information** 1-253-333-8118

**Prepared By** W. Smoot, System Three Resins Inc.

**1. Product Identification**

---

<b>Product name</b>	SilverTip <sup>®</sup> Slow Hardener Part B
<b>SDS Number</b>	0901B
<b>Product type</b>	Curing Agent
<b>Manufacturer/Supplier information</b>	
<b>Company name</b>	SYSTEM THREE RESINS, INC.
<b>Address</b>	3500 W. Valley Hwy, Suite Suite 105 Auburn, WA 98991-2436 United States
<b>Telephone</b>	1-253-333-8118
<b>Website</b>	www.systemthree.com
<b>Email</b>	support-08@systemthree.com
<b>Emergency Contact</b>	CHEMTREC (U.S. and CANADA) 1-800-424-9300 CHEMTREC (Outside the U.S.) 1-703-527-0585

**2. Hazard(s) Identification**

---

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

DANGER

**GHS Label Elements**  
**Hazard Pictograms**



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

H302 Harmful if swallowed  
H314 Corrosive to skin  
H315 May cause sensitization by skin contact.  
H361fd Respiratory irritant  
H400 Acute Hazard to aquatic life  
H410 Chronic hazard to aquatic life

**Precautionary statements**

**Precautionary Statements**  
**Prevention**

P280 Wear protective gloves. Wear eye or face protection.  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.

**Response**

P308 + P313 If exposed or concerned: Get medical attention.

**Storage**

P401 Store at room temperature in a well ventilated area.

**Disposal**

P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.

### 3. Composition/Information On Ingredients

---

Chemical Name	CAS Number	Content (%)
Aliphatic Amine Mixture	Trade Secret	70 – 80%
Alkyl Phenol Mixture	Trade Secret	15 – 20%
Benzyl Alcohol	100-51-6	10– 15%

### 4. First-Aid Measures

---

<b>General advice</b>	Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
<b>Skin contact</b>	Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Flush immediately with copious amounts of water. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing.
<b>Eye contact</b>	Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical attention. If medical care is not promptly available, continue to irrigate for one hour.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side
<b>Inhalation</b>	Move to fresh air.

### 5. Fire-Fighting Measures

---

<b>Suitable extinguishing media</b>	Alcohol-resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical Water Fog
<b>Specific hazards arising from the chemical</b>	Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
<b>Special protective equipment and precautions for fire-fighters</b> <b>Fire-fighting equipment/instructions</b>	Avoid contact with skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
<b>Further information</b>	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.

### 6. Accidental Release Measures

---

<b>Personal precautions</b>	Wear proper protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing.
<b>Emergency procedures</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Construct a dike to prevent spreading.

<b>Methods and materials for containment/cleanup</b>	Stop spill at source, dike area to prevent spreading, place in proper waste container. Contact Chemtrec for further instruction. Approach suspected leak areas with caution.
<b>Environmental precautions</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways.

## 7. Handling And Storage

---

<b>Precautions for safe handling</b>	Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.
<b>Precautions/Recommendations for safe/proper storage</b>	Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep from freezing.

## 8. Exposure Controls/Personal Protection

---

<b>Engineering controls</b>	Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.
<b>Individual protection measures/Personal protective equipment</b>	
<b>Eye/face protection</b>	Splash-safe glasses
<b>Hand protection</b>	Butyl-rubber, Nitrile rubber, Neoprene Gloves, PVC disposable gloves, Impervious gloves.
<b>Skin protection</b>	Impervious clothing, Full rubber suit (rain gear), Rubber or plastic boots, Slicker suit.
<b>Environmental exposure controls</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter sewers or waterways.
<b>Special instructions for protection and hygiene</b>	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

---

<b>Chemical family</b>	Amine Curing Agent
<b>Appearance</b>	Clear liquid
<b>Physical State</b>	Amine mixture
<b>Form</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Ammoniacal
<b>Relative density</b>	0.9 – 1.0
<b>Viscosity</b>	525 cps at 77 °F (25 °C)
<b>pH</b>	Alkaline
<b>Initial boiling point and boiling range</b>	NA
<b>Flash point</b>	NA

Vapor pressure

NA

## 10. Stability And Reactivity

---

**Chemical Stability**

Stable under normal conditions.

**Incompatible materials**

Organic acids (i.e. acetic acid, citric acid, etc.).  
Mineral acids.  
Sodium hypochlorite.  
Oxidizing agents.

**Hazardous decomposition products**

Nitric acid  
Ammonia  
Aldehydes  
Nitrogen oxides (NO<sub>x</sub>)  
Nitrogen oxide can react with water vapors to form corrosive nitric acid.  
Carbon monoxide.  
Carbon dioxide (CO<sub>2</sub>).

## 11. Toxicological Information

---

**Acute Health Hazard (components)**

\*No comprehensive data (ingestion, inhalation, dermal) on mixture (product).

**Sensitization**

May cause sensitization of susceptible persons by skin contact.

**Chronic Health Hazard**

Aquatic

## 12. Ecological Information

---

**Ecotoxicity**

**Aquatic toxicity**

No data on the product itself.

**Alkyl Phenols**

Aquatic Acute 1: 2.5 =< C < 25%  
Aquatic Chronic 1: 2.5 =< C < 25%

**Persistence and degradability**

No data on product itself.

## 13. Disposal Considerations

---

**Waste from residues/ unused products**

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

---

**DOT**

**UN/ID No.**

UN2735

**Proper shipping name**

Amines, liquid, corrosive, n.o.s., (4,4'-Methylenebiscyclohexanamine, Methylimidazole, 1-).

**Class or Division**

8

**Packing group**

III



Label(s) 8  
Marine Pollutant Yes

#### IATA

UN/ID No. UN2735  
Proper shipping name Amines, liquid, corrosive, n.o.s., (ethyleneamine).

Class or Division 8  
Packing group III  
Label(s) 8  
Marine Pollutant Yes

**Note\*\*** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment. For more information contact System Three technical support.

#### IMDG

UN/ID No. UN2735  
Proper shipping name Amines, liquid, corrosive, n.o.s., (ethyleneamine).

Class or Division 8  
Packing group III  
Label(s) 8  
Marine Pollutant Yes

**Note\*\*** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment. For more information contact System Three technical support

#### TDG

UN/ID No. UN2735  
Proper shipping name Amines, liquid, corrosive, n.o.s., (ethyleneamine).

Class or Division 8  
Packing group III  
Label(s) 8  
Marine Pollutant No

**Note\*\*** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment. For more information contact System Three technical support

#### Further Information

The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact System Three technical support.

## 15. Regulatory Information

---

#### UNITED STATES

**Toxic Substance Control Act (TSCA) 12(b) – Components:** None.

**OSHA Hazard Communication Standard (29 CFR 1910.1 200) Hazard Classes:** Corrosive. Sensitizer.

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

**EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification:** None

**EPA SARA Title III Section 313 (40 CFR 372) Component(s) above ‘de minimus’ level:** None.

**WHMIS Hazard Classification:** Class E Corrosive Material.

## INTERNATIONAL REGULATIONS

### International Lists

**USA inventory (TSCA 8b):** Included on inventory  
**EU (EINECS):** Included on EINECS inventory or polymer substance, monomers  
**Australia inventory (AICS):** Included on inventory  
**Canada inventory (DSL):** Included on inventory  
**Japan inventory (ENCS):** Included on inventory  
**China inventory (IECSC):** Included on inventory  
**South Korea inventory (ECL):** Included on inventory

## 16. Other Information, Including Date Of Preparation Or Last Revision

---

### HMIS Rating

Health	3
Flammability	1
Physical Hazard	0

**Date of Preparation** March 26, 2015

**More Information** 1-253-333-8118

**Prepared By** W. Smoot, System Three Resins Inc.