



MATERIAL SAFETY DATA SHEET

System Three Resins, Inc.

3500 W. Valley Hwy N; Suite 105

Auburn, Washington 98001

SECTION I - PRODUCT IDENTIFICATION

Product Name: **Silvertip® Laminating Resin Part A**

MSDS Number: 0900A

Product Type: Epoxy Polymer Mixture

24-Hr. Emergency Phone:

CHEMTREC: 1-800-424-9300

Date of Prep: August 1, 2003

Information: 253-333-8118

Prepared By: J. Bartlett

Hazard Ratings:

Health 2

Fire 1

Reactivity 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>INGREDIENT</u>	<u>WT%</u>	<u>CAS NUMBER</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Diglycidyl Ether of Bisphenol A	70-80%	25068-38-6	none established	none established
Benzyl Alcohol	10-15%	100-51-6	none established	none established
Alkylglycidyl Ether	10-15%	17557-23-2	none established	none established

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: not applicable

Vapor Density: Heavier than Air

Evaporation Rate: Slower than Ether

Appearance and Odor: Clear thick liquid with little or no odor.

Specific Gravity: 1.1-1.3

Material V.O.C.: None

Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 300°F

Flammable Limits in Air By Volume - Lower: N/A Upper: N/A

Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Method: Pensky-Martens Closed Cup

Special Firefighting Procedures: 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.

SECTION V - REACTIVITY DATA

Stability: Stable.

Incompatibility: Strong oxidizing agents, Lewis and mineral acids.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Oxides of carbon, aldehydes, acids

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.

SECTION VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

Acute: Slightly irritating to skin, moderately irritating to eyes. Odor may irritate nose, throat and respiratory tract of some persons.

Chronic: May cause skin sensitization from prolonged and repeated contact.

Carcinogenicity: Early studies with DGEBA have been negative. The IARC concluded in 1988 that DGEBA was not classifiable as a carcinogen.

EMERGENCY AND FIRST AID PROCEDURES:

Eyes: Flush with water for 15 minutes holding eyelids open. Seek medical attention.

Skin: 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.

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

Ingestion: 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.

Medical Conditions Generally Aggravated by Exposure: Other than skin sensitization which appears to be permanent, epoxy resin does not appear to cause long term health effects. Nor, does it appear to aggravate other medical conditions.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

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.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Normally none is required when adequate ventilation is provided. In the absence of proper environmental control NIOSH approved respiratory is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye 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.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX - TRANSPORTATION REQUIREMENTS

Department of Transportation Classification: Not Hazardous

D.O.T. Proper Shipping Name: Not Regulated

Other Requirements:

This product contains no toxic chemicals subject to the report requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (EPRCA) and of 40 CFR 372.

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.



MATERIAL SAFETY DATA SHEET

System Three Resins, Inc.

3500 W. Valley Hwy N; Suite 105

Auburn, Washington 98001

SECTION I - PRODUCT IDENTIFICATION

Product Name: **Silvertip® Fast Hardener Part B**

MSDS Number: 0900B

Product Type: Amine Polymer Mixture

24-Hr. Emergency Phone:

CHEMTREC: 1-800-424-9300

Date of Prep: August 1, 2003

Information: 253-333-8118

Prepared By: J. Bartlett

Hazard Ratings:

Health **3**

Fire **1**

Reactivity **0**

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>INGREDIENT</u>	<u>WT%</u>	<u>CAS NUMBER</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Aliphatic Amines	60-70%	(Mixture is a trade secret)	none established	
Alkyl Phenols	15-20%	(Mixture is a trade secret)	none established	
Benzyl Alcohol	15-20%	100-51-6	none established	
Aromatic Amine	5-10%	14-77-55-0	0.1 mg/m ³	none established

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: not applicable

Vapor Density: Heavier than Air

Evaporation Rate: Slower than Ether

Appearance and Odor: Clear thick liquid with ammonia-like odor.

Specific Gravity: 0.9-1.0

Material V.O.C.: None

Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 300°F

Flammable Limits in Air By Volume - Lower: N/A Upper: N/A

Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Method: Pensky-Martens Closed Cup

Special Firefighting Procedures: 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.

SECTION V - REACTIVITY DATA

Stability: Stable.

Incompatibility: Strong oxidizing agents, Lewis and mineral acids.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Oxides of carbon and nitrogen, aldehydes, acids

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.

SECTION VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

Acute: Slightly irritating to skin, moderately irritating to eyes. Odor may irritate nose, throat and respiratory tract of some persons.

Chronic: May cause skin sensitization from prolonged and repeated contact.

Carcinogenicity: Early studies with DGEBA have been negative. The IARC concluded in 1988 that DGEBA was not classifiable as a carcinogen.

EMERGENCY AND FIRST AID PROCEDURES:

Eyes: Flush thoroughly with water for at least 15 minutes. Get immediate medical attention.

Skin: Remove contaminated clothing and flood area with water. Wash affected skin with soap and water. Wash clothing before reuse. Discard shoes. Get medical attention if redness, soreness, or blistering occur or persist.

Inhalation: Remove to fresh air. Administer oxygen if necessary. Get medical attention if breathing is difficult or cough develops.

Ingestion: DO NOT INDUCE VOMITING. Vomiting will cause further damage to throat or respiratory tract. Dilute by giving water or milk to drink if victim is conscious. GET IMMEDIATE MEDICAL ATTENTION.

Medical Conditions Generally Aggravated by Exposure: This material may be a strong skin sensitizer in certain susceptible persons. Once sensitized, most persons are unable to work around amine cured epoxy resins without an allergic reaction. Sensitized persons are not known to have other health problems as a result of sensitization.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

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.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Normally none is required when adequate ventilation is provided. In the absence of proper environmental control NIOSH approved respiratory is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye 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.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX - TRANSPORTATION REQUIREMENTS

Department of Transportation Classification:

One gallon or less: ORM-D

More than one gallon: AMINES, LIQUID, CORROSIVE, N.O.S., (ETHYLENE AMINE), 8, UN2735, PG II, ERG NO. 153

SARA Title III:

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CHEMTREC: 1-800-424-9300

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Information: 253-333-8118
Prepared By: J. Bartlett

Hazard Ratings:
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Fire 1
Reactivity 0

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Flash Point: > 300°F
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