




SAFETY DATA SHEET

1. Product Identification

Product name	S-1 Epoxy Sealer Part A
SDS Number	F1400A00
Product type	Epoxy polymer mixture.
Recommended use of the chemical and restrictions on use	Directed at, but not limited to, the sealing and coating of wood and fiber composites
Restrictions	None known.
Manufacturer/Supplier information	
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	DANGER! Flammable liquid Category 3 Eye Corrosive Category 2B
<u>GHS Label Elements</u> Hazard Pictograms	
<u>Hazard statements</u>	H225 Highly flammable liquid and vapor H304 May be fatal if swallowed and enter airways H315 Causes skin irritation H332 Harmful if inhaled H413 May cause long lasting harmful effects to aquatic life
<u>Precautionary Statements</u> Prevention	P280 Wear protective gloves. Wear eye or face protection. P241 Use explosion-proof electrical/ventilating/light/.../equipment. P260 Do not breathe dust/fume/gas/mist/vapors/spray P271 Use only outdoors or in a well-ventilated area.
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 (%)
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[[1-methylethylidene)bis(4,1-phenyleneoxymethylen e)]bis[oxirane]	25036-25-3	40-50 %
Xylenes	1330-20-7	30-35%
Methyl Isobutyl Ketone	108-10-1	15-20%
Ethyl Benzene	100-41-4	1-5%

4. First-Aid Measures

Inhalation	Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.
Skin contact	Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water for at least 15 minutes. 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.
Eye contact	Flush with water for 15 minutes holding eye lids open. Seek medical attention.
Ingestion	Do not give anything if victim is unconscious or very drowsy. DO NOT INDUCE VOMITING. Seek medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.
Most important symptoms/effects, acute and delayed	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.
Indication of immediate medical attention and special treatment needed	Treat symptoms as they appear.

5. Fire-Fighting Measures

Suitable extinguishing media	Foam, carbon dioxide, dry chemical, water fog.
Unsuitable extinguishing media	None known
Specific hazards arising from the chemical	Potential skin irritation.
Special protective equipment and precautions for fire-fighters	When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire-exposed containers. When heated above the flash point, this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.
Fire-fighting equipment/instructions	Full fire suit and self-contained breathing apparatus.
Specific methods	Water spray may be used to cool fire-exposed containers. Toxic fumes may be evolved when this substance is burned.
General fire hazards	Warning! Flammable liquid. Clear fire area of unprotected personnel.

6. Accidental Release Measures

Personal precautions	Wear proper personal protective equipment (PPE). Avoid direct contact with material.
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Protective equipment	Proper PPE includes: disposable gloves, eye protection and skin protection.
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	Ventilate area of leak or spill. 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	Keep away from heat, sparks, and open flame, and out of the reach of pets or children. Securely fasten container lids and tops, and prevent products from sitting and below freezing temperatures. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death.
Chemical incompatibilities	None known.

8. Exposure Controls/Personal Protection

<u>Chemical Name/CAS No.</u>	<u>OSHA Exposure Limits</u>	<u>ACGIH Exposure Limits</u>	<u>Other Exposure Limits</u>
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylen e)]bis[oxirane] 25036-25-3	Not established	Not established	Not established
Xylenes 1330-20-7	TWA 100 ppm, 435 mg/m ³	TWA 100 ppm, 434 mg/m ³ STEL 150 ppm, 651 mg/m ³	Not established
Methyl Isobutyl Ketone 108-10-1	TWA 100 ppm PEL 410 mg/m ³	TWA 50 ppm STEL 75 ppm BEI	Not established
Ethyl Benzene 100-41-4	TWA 100 ppm, PEL 435 mg/m ³	Not established	Not established

Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination. General mechanical ventilation or local exhaust should be suitable to keep vapor concentrations below TLV. Ventilation equipment must be explosion proof.

Eye/face protection	Splash proof goggles or safety glasses with side shields are recommended. Always wear eye protection when sanding cured epoxy to avoid dust in eyes.
Skin protection	Wear clean, body-covering clothing to avoid skin contact. Wear chemical resistant gloves such as: Poly Vinyl Alcohol (PVA), Viton, or Teflon gloves, apron, boots, head and face protection should be worn. The equipment must be cleaned thoroughly after each use.
Respiratory protection	Use a NIOSH-approved respiratory device or air-supplied respirator if exposure exceeds any occupational limits. In accord with 29 CFR 1910.134

use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

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

Appearance	Translucent liquid
Physical State	Pourable liquid
Form	Pourable liquid
Color	Water clear
Odor	Pungent odor
Odor threshold	Not applicable
Density (Specific gravity)	0.968
Viscosity	600-750 cps @ 25°C
pH	Data not available
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 or explosive limits	Data not available
Material VOC	521.40 g/l
Vapor density	Heavier than air
Relative density	Data not available
Solubility	Not determined
Partition coefficient: n-octanol/water	Negligible, in water
Auto-ignition temperature	Not available
Decomposition temperature	300°C (572.00°F)

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, Lewis and mineral acids.
Hazardous decomposition products	Oxides of carbon, aldehydes, acids.

11. Toxicological Information

Mixture Toxicity	Oral Toxicity LD50: 539mg/kg Dermal Toxicity LD50: 1,366mg/kg		
Component Toxicity	CAS Number	Species	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylen e)]bis[oxirane]	25036-25-3	Mouse Rabbit	LD50 Oral: 270 mg/kg LD50 Dermal: 360 mg/kg
Xylenes	1330-20-7	Rat	Oral LD50: 4,300 mg/kg Inhalation LC50: 5,000 ppm
Methyl Isobutyl Ketone	108-10-1	Rat	Oral LD50: 2,080 mg/kg Inhalation LC50: 12 mg/m3
Ethyl Benzene	100-41-4	Rat	Oral LD50: 3,500 mg/kg Inhalation LC50: 4,000 ppm
Potential Health Effects			
Ingestion	Liquid is moderately toxic and may be harmful if swallowed; may produce CNS depression. Ingestion of product may result in vomiting; aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities may result in aspiration pneumonitis.		
Inhalation	High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).		
Skin contact	Liquid is mildly irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).		
Eye contact	Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness.		
Information on carcinogenicity	No comprehensive data available showing potential carcinogenicity by OSHA, NTP, or IARC.		
Immediate concerns	WARNING! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapor harmful. May cause central nervous system depression. May be irritating to eyes and skin.		
Medical conditions aggravated	Persons with pre-existing skin, eye, or central nervous system disorders, or impaired liver, kidney, or pulmonary function may be susceptible to the effects of this substance.		
Comments	Reports have associated repeated and prolonged occupational overexposure to solvents with irreversible brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.		

12. Ecological Information

Ecotoxicity			
Component	Result	Species	Exposure
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-	LC50: 125 mg/l	Fish (Goldfish)	24 h
	>50 mg/l	Fish (Fathead minnow)	1 h
	>50 mg/l	Fish (Fathead minnow)	24 h
	>33 mg/l	Fish (Fathead minnow)	72 h

methylethylidene)bis(4,1-phenyleneoxymethylen e)]bis[oxirane]	>33 ppm	Fish (Fathead minnow)	96 h
Methyl Isobutyl Ketone	LC0: 480 mg/l	Leuciscus idus melanotus	48 h
	EC50: 1,550 – 3,623 mg/l	Daphnia magna (Water flea)	24 h
	EC50: 980 – 2,000 mg/l	Desmodesmus subspicatus (green algae)	48 h
Ethyl benzene	LC50: 32.0~97.1 mg/l	Fish	96 h
	EC50: Not available	Water flea	48 h
	Bioconcentration factor (BCF): Not available		
Xylene	LC50: 13.4 mg/l Fresh water	Fish (Fathead Minnow)	96 h
Persistence and degradability	Not available		
Bioaccumulative potential			
Xylene	LogP _{ow} – 3, BCF – NA, Potential – Low.		
Mobility in soil	Not available		

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

The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

RCRA/EPA Waste Information

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. Transport Information

Regulatory information

DOT	UN/NA number	UN1263
	Proper Shipping Name	Paint
	Class or Division	3
	Packing Group	II
	Label(s)	
	Marine Pollutant	
TDG	UN/NA number	UN1263
	Proper Shipping Name	Paint
	Class or Division	3
	Packing Group	II
	Label(s)	
	Marine Pollutant	
IMO/IMDG	UN/NA number	UN1263
	Proper Shipping Name	Paint
	Class or Division	3
	Packing Group	II
	Label(s)	
	Marine Pollutant	

IATA (Cargo)	UN/NA number	UN1263
	Proper Shipping Name	Paint
	Class or Division	3
	Packing Group	II
	Label(s)	
	Marine Pollutant	

15.Regulatory Information

UNITED STATES

U.S. Federal Regulations

SARA TITLE III (Superfund Amendments and Reauthorization Act)

SARA 311/312 Hazard Categories: This product should be reported as immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

SARA 302/304 Emergency Planning: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

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

All components are listed in the DSL.

WHMIS (Canada)

Class B-2: Flammable liquid.

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

HMIS Rating

Health	2
Flammability	3
Physical Hazard	0

Date of Preparation

August 4, 2016

More Information

1-253-333-8118

Prepared By

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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.