

## 1. Product Identification

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<b>Product name</b>	EZ-Fillet Hardener, Part B
<b>SDS Number</b>	1430B00
<b>Product type</b>	Epoxy curing agent.
<b>Recommended use of the chemical and restrictions on use</b>	Directed at, but not limited to, the filling and reinforcing of wood structures.
<b>Restrictions</b>	None known.
<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 98001-2436 United States
<b>Telephone</b>	1-253-333-8118
<b>Website</b>	www.systemthree.com
<b>Email</b>	support@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

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<b>Classification of substance or mixture/Signal Word</b>	DANGER ACUTE TOXICITY: ORAL – Category 4 SKIN CORROSION/IRRITATION – Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION – Category 1 SKIN SENSITIZATION – Category 1 TOXIC TO REPRODUCTION [Fertility] – Category 1 TOXIC TO REPRODUCTION [Unborn child] – Category 1
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**GHS Label Elements**  
**Hazard Pictograms**



<b>Hazard Statements/Classification of substance or mixture</b>	H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H360 May damage fertility or the unborn child.
<b>Precautionary statements</b>	
<b><u>Precautionary Statements</u></b>	P201 Obtain special instructions before use.
<b>Prevention</b>	P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

	P264 Wash hands thoroughly after handling.
	P271 Use only outdoors or in a well-ventilated area.
	P272 Contaminated work clothing should not be allowed out of the workplace.
<b>Response</b>	P280 Wear protective gloves. Wear eye or face protection.
	P313 Call a POISON CENTER or doctor/physician if you feel unwell.
	P301+330 +331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P303+361+353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
<b>Storage</b>	P401 Store at room temperature in a well-ventilated area.
<b>Disposal</b>	P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazards not otherwise classified (HNOC)</b>	None Available.

### 3. Composition/Information On Ingredients

Chemical Name	CAS Number	Content (%)
Modified Polyamines	Trade Secret	80 – 90%
Benzyl Alcohol	100-51-6	15 – 25%

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

<b>Skin contact</b>	Remove contaminated clothing and shoes and wipe excess off skin. Wash the affected area with plenty of soap and water until no evidence of the chemical remains (at least 15-20 minutes). Launder clothes before reuse. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact</b>	Rinse immediately with plenty of water for at least 15 minutes. Flush longer if there is an indication of residual chemical in the eye. Ensure adequate flushing of the eyes by separating the eyelids with fingers and roll eyes in a circular motion. Check for and remove any contact lenses. Continue rinsing for 10 minutes. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse out the mouth with water. Get medical attention immediately.
<b>Inhalation</b>	If affected, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a POISON CENTER or doctor/physician if you feel unwell.

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

<b>Notes to physician</b>	Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.
<b>Specific treatments</b>	No specific treatment.

### 5. Fire-Fighting Measures

<b>Suitable extinguishing media</b>	Alcohol-resistant foam.
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<b>Unsuitable extinguishing media</b>	Carbon dioxide (CO <sub>2</sub> ).
<b>Specific hazards arising from the chemical</b>	Dry chemical Water Fog None known.
<b>Hazardous decomposition products</b>	In a fire or if heated, a pressure increase will occur and the container may burst. 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. Decomposition products may include the following materials: Carbon dioxide Carbon monoxide Nitrogen oxides
<b>Special protective actions for fire-fighters</b>	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.
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
<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

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<b>Personal precautions</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Wear proper protective clothing, gloves and eye/face protection.
<b>Emergency procedures</b>	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.
<b>Methods and materials for containment/cleanup</b>	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.
<b>Environmental precautions</b>	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

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<b>Precautions for safe handling</b>	Put on appropriate personal protective equipment. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid contact with skin and eyes. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. When using, do not eat, drink or smoke. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering
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eating areas. See also Section 8 for additional information on hygiene measures.

**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

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<b>Occupational Exposure Limits</b>	None established.
<b>Appropriate engineering controls</b>	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.
<b>Environmental exposure controls</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. Do not allow spill to enter sewers or waterways.
<b>Individual protection measures/Personal protective equipment</b>	
<b>Eye/face protection</b>	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.
<b>Hand protection</b>	Always wear impervious gloves: butyl rubber, nitrile rubber, Neoprene, PVC disposable gloves,
<b>Skin protection</b>	Wear clean, body-covering clothing to avoid skin contact.
<b>Respiratory protection</b>	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Special instructions for protection and hygiene</b>	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

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<b>Chemical family</b>	Amine curing agent
<b>Appearance</b>	Green paste
<b>Physical State</b>	
<b>Form</b>	Paste
<b>Color</b>	Green
<b>Odor</b>	Amine-like odor
<b>Density (Specific Gravity)</b>	1.06
<b>Viscosity</b>	100,000 CPS @77°F (25°C)

pH	N/A
Melting point/freezing point	N/A
Initial boiling point and boiling range	N/A
Flash point	>250°F (Pensky-Martins Closed Cup)
Evaporation rate	Slower than Ether
Flammability (solid, gas)	N/A
Upper/lower flammability limit (by volume)	N/A
Upper flammability limit (by volume)	N/A
Lower flammability limit (by volume)	N/A
Material VOC	None
Vapor density	Heavier than Air
Relative density	N/A
Solubility in water	Negligible
Partition coefficient: n-octanol/water	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A

## 10. Stability and Reactivity

Reactivity	Stable.
Chemical Stability	Stable under normal conditions.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions 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 the ensuing exotherm may result in heat and smoke.
Incompatible materials	Strong oxidizing agents, mineral acids.
Hazardous decomposition products	Oxides of carbon, nitrogen.
Other hazards	None known.

## 11. Toxicological Information

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

Component	Result	Species	Dose	Exposure
Benzyl Alcohol	Inhalation LC50	Rat	>4178 mg/m <sup>3</sup>	4 h, aerosol
	Oral LD50	Rat	1620 mg/kg	

**Irritation/Corrosion (components)** Classifies as skin corrosion Category 1 based on GHS cut-off values/concentration limits in the product. Causes serious eye damage (Category 1).

Component	Result	Species	Test	Exposure
Benzyl Alcohol	Non-irritant	Rabbit	OECD 404 – Skin	-

	Irritant	Rabbit	OECD 405 – Eye	-
Modified Polyamines	Corrosive		Calculated	

**Sensitization** Weight of evidence classifies product to be skin sensitizing.

Component	Route of Exposure	Species	Results
Modified Polyamines	Skin	Guinea pig	Sensitizing

**Mutagenicity** No information on the product itself.

**Carcinogenicity** No information on the product itself.

**Reproductive Toxicity** No information on the product itself.

**Teratogenicity** No information on the product itself.

**Specific target organ toxicity (single exposure)** No information on the product itself.

**Specific target organ toxicity (repeated exposure)** No information on the product itself.

**Aspiration hazard** No information on the product itself.

**Potential acute health effects**

- Eye Contact** Causes serious eye damage.
- Inhalation** May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin Contact** Causes severe burns. Toxic in contact with skin. May cause an allergic skin reaction.
- 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  
Watering  
Redness
- Inhalation** Adverse symptoms may include the following:  
Reduced fetal weight  
Increase in fetal deaths
- Skin Contact** Adverse symptoms may include the following:  
Pain or irritation  
Redness  
Blistering may occur  
Reduced fetal weight  
Increase in fetal deaths
- Ingestion** Adverse symptoms may include the following:  
Stomach pains  
Reduced fetal weight  
Increase in fetal deaths

**Delayed and immediate effects and also chronic effects from short and long term exposure** No information on the product itself.

**Potential chronic health effects**

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

<b>Carcinogenicity</b>	No known significant effects or critical hazards.
<b>Mutagenicity</b>	No known significant effects or critical hazards.
<b>Teratogenicity</b>	Suspected of damaging the unborn child.
<b>Developmental effects</b>	No known significant effects or critical hazards.
<b>Fertility effects</b>	Suspected of damaging fertility.

**Numerical measures of toxicity**

**Acute toxicity estimates (ATEmix)**

Route	ATE value
Oral	1915.6 mg/kg
Dermal	3251 mg/kg
Inhalation (vapors)	50.99 mg/l

**12. Ecological Information**

**Ecotoxicity**

No comprehensive data on the product itself.

Component	Test	Endpoint	Exposure	Species	Result
Benzyl Alcohol	-	Acute EC50	48 hrs	Invertebrates	230 mg/l
	-	Acute LC50	96 hrs	Fish	460 mg/l
	-	Acute EC50	72 hrs	Algae	770 mg/l

**Persistence and degradability**

No information on the product itself.

Component	Test	Period	Result
Benzyl Alcohol			Readily Biodegradable

**Bioaccumulative Potential**

No information on the product itself.

Component	LogPow	BCF	Potential
Benzyl Alcohol	1.05	1.37 (calculated)	Low

**Mobility in Soil**

No information on the product itself.

<b>Soil/water partition coefficient (KOC)</b>	No information on the product itself.
<b>Other adverse effects</b>	None known.

**13. Disposal Considerations**

<b>Waste from residues/ unused products</b>	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.
<b>Contaminated packaging</b>	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.

**International Transport Regulations**

Regulatory information	UN/NA number	Proper Shipping Name	Classes/*PG	Additional Information
DOT	UN3259	Polyamine, solid, corrosive, n.o.s. (n-Aminoethylpiperazine)	Class 8 III	
TDG	UN3259	Polyamine, solid, corrosive, n.o.s. (n-Aminoethylpiperazine)	Class 8 III	
IMO/IMDG	UN3259	Polyamine, solid, corrosive, n.o.s. (n-Aminoethylpiperazine)	Class 8 III	
IATA	UN3259	Polyamine, solid, corrosive, n.o.s. (n-Aminoethylpiperazine)	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(e) – 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)**

Product Name	Concentration %
Diethanolamine	

**Pennsylvania – RTK**

N-Aminoethylpiperazine, Diethanolamine

**California Prop. 65**

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

Ingredient Name	Cancer	Reproductive
Diethanolamine	Yes.	No.

**EPA SARA 302 Extremely Hazardous Substances**

None.

**EPA SARA 302/304/311/312 Hazardous Chemicals**

Acute Health Hazard, Chronic Health Hazard

**SARA 313**

**Form R – Reporting requirements**

Product Name	Concentration %
Diethanolamine	1%

**CERCLA Hazardous substances**

Component	%	Section 304 CERCLA Hazardous Substance	CERCLA Reportable Quantity (Lbs)	Product Reportable Quantity (Lbs)
Diethanolamine	1%		100	

**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  
CEPA Toxic substances

Class E: Corrosive material.

None required.

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

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#### HMIS Rating

Health 3  
Flammability 1  
Physical Hazard 0

Date of Preparation	November 15, 2018
Date of Last Revision	February 9, 2017
Revision #	2.0
More Information	1-253-333-8118
Prepared by	N. Kim, System Three Resins Inc.

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