

**1. Product Identification**

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<b>Product Name</b>	Phase Two Part B
<b>SDS Number</b>	0300B00
<b>Product Type</b>	Epoxy Hardener
<b>Recommended use of the chemical and restrictions on use</b>	Epoxy Hardener Component.
<b>Restrictions</b>	None known.
<b>Manufacture/Supplier Information</b>	
<b>Company Name</b>	SYSTEM THREE RESINS, INC.
<b>Address</b>	3500 W. Valley Hwy North Suite 105 Auburn, WA 98001-2436
<b>Telephone</b>	(253) 333-8118
<b>Website</b>	<a href="http://www.systemthree.com">www.systemthree.com</a>
<b>Email</b>	<a href="mailto:Support-08@systemthree.com">Support-08@systemthree.com</a>
<b>Emergency Contact</b>	CHEMTREC (U.S. and CANADA) (800) 424-9300 CHEMTREC (Outside the U.S.) (703) 527-0585

**2. Hazard(s) Identification**

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<b>Classification</b>	ACUTE TOXICITY, ORAL – Category 4, H302 ACUTE TOXICITY, DERMAL – Category 4, H312 SKIN CORROSION/IRRITATION - Category 1B, H314 SENSITIZATION, SKIN - Category 1, H317 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1, H318 ACUTE TOXICITY, INHALATION – Category 4, H332 TOXIC TO REPRODUCTION, FERTILITY – Category 1B, H360 TOXIC TO REPRODUCTION, UNBORN CHILD – Category 1B, H360 ACUTE AQUATIC TOXICITY – Category 3, H402 CHRONIC AQUATIC TOXICITY – Category 3, H412
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**Label Elements****Symbol****Signal Word**

DANGER

**Hazard Statements**

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.  
H332: Harmful if inhaled.  
H360: May damage fertility or the unborn child.  
H402: Harmful to aquatic life.  
H412: Harmful to aquatic life with long lasting effect.

## 2. Hazard(s) Identification

### Precautionary Statements

<b>Prevention</b>	P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P260: Do not breathe dusts or mists. P261: Avoid breathing fumes/vapors. P264: Wash hands and exposed skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in well-ventilated area. P272: Contaminated work clothes should not be allowed out of the workplace. P273: Avoid release to the environment. P280: Wear eye protection/face protection. Wear protective gloves. P281: Use personal protective equipment as required.
<b>Response</b>	P301 + P310 + P330 + P331: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313: IF exposed or concerned: Get medical advice/attention. P310: Immediately call a POISON CENTER or doctor/physician. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P333 + P313: If skin irritation or rash occurs: Get medical advice/attention. P361: Remove/Take off immediately all contaminated clothing. P363: Wash contaminated clothing before reuse.
<b>Storage</b>	P405: Store locked up.
<b>Disposal</b>	P501: Disposal of contents/container to be specified in accordance with regulations.
<b>General</b>	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
<b>Hazards Not Otherwise Classified (HNOC)</b>	None. 0% of this mixture consists of ingredients of unknown acute toxicity.
<b>OSHA/HCS Status</b>	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

## 3. Composition/Information on Ingredients

Component	%	CAS Number
Modified Aliphatic/Aromatic Amine Blend	60-70	*Proprietary
1,3-Bis(aminomethyl)benzene	25-30	1477-55-0

\* Designates that a specific chemical identity and/or percentage of a composition has been withheld as a trade secret. Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 |1-13.

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

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<b>Skin Contact</b>	Get medical attention immediately. Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Safety shower should be located in immediate work area.
<b>Eye Contact</b>	Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Suitable emergency eye wash facility should be available in work area.
<b>Ingestion</b>	Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Inhalation</b>	Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most Important Symptoms/Effects, Acute and Delayed

<b>Skin Contact</b>	Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.
<b>Eye Contact</b>	Causes serious eye damage.
<b>Ingestion</b>	May cause burns to mouth, throat and stomach.
<b>Inhalation</b>	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.

### Over-exposure Signs/Symptoms

<b>Skin Contact</b>	Adverse symptoms may include the following: Irritation Pain Redness Blistering of skin Reduced fetal weight Increase in fetal deaths Skeletal malformations
<b>Eye Contact</b>	Adverse symptoms may include: Pain Watering Redness
<b>Ingestion</b>	Adverse symptoms may include the following: Stomach pains Reduced fetal weight Increase in fetal deaths Skeletal malformations

## 4. First Aid Measures

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<b>Inhalation</b>	Adverse symptoms may include the following: Severe respiratory tract irritation Coughing Shortness of breath Headache Nausea Reduced fetal weight Increase in fetal deaths Skeletal malformations
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### Indication of Immediate Medical Attention and Special Treatment Needed

<b>Notes to Physician</b>	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled or if extended exposure to eye and skin tissues have occurred.
<b>Specific Treatments</b>	No specific treatment.
<b>Protection of First Responders</b>	No action taken shall be taken involving any personal risk without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## 5. Fire Fighting Measures

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<b>Lower Explosive Limit (LEL)</b>	N/A
<b>Upper Explosive Limit (UEL)</b>	N/A
<b>Specific Hazards Arising From the Chemicals</b>	May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from the fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces noxious and toxic fumes. In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Suitable Extinguishing Media</b>	Alcohol-resistant foam, dry chemical, dry sand, limestone powder or carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable Extinguishing Media</b>	Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from the fire fighting to enter drains or water courses.
<b>Products of Combustion</b>	May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes.
<b>Protection of Firefighters</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. Move containers from fire area if this can be done without risk.  Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.

## 6. Accidental Release Measures

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### Personal Precautions, Protective Equipment and Emergency Procedures

<b>For Non-Emergency Personnel</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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
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## 6. Accidental Release Measures

### For Emergency Responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

### Environmental Precautions

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).

### Methods For Containment

#### Small Spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert dry absorbent material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Wash the spill area clean with water and detergent, observing environmental requirements.

#### Large Spill

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 inert dry absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Wash the spill area clean with water and detergent, observing environmental requirements. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. Handling and Storage

### Protective Measures

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. 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.

### General Occupational Hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

### General Occupational Hygiene (cont.)

See Section 8 for additional information on hygiene measures.

### Safe Storage Conditions

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 (see Section 10) and food and drink. 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

### Occupational Exposure Limits:

List	Components	CAS-No.	Type	Value
ACGIH	Proprietary	N/A	TLV	0.1 mg/m <sup>3</sup> – Ceiling (skin)
AIHA	None			
NIOSH	Proprietary	N/A	TLV	0.1 mg/m <sup>3</sup> – Ceiling (skin)
OSHA Z1	None			

## 8. Exposure Controls/Personal Protection

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<b>Engineering Controls</b>	Use only with adequate ventilation. Use explosion-proof process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide readily accessible eye wash stations and safety showers.
<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.
<b><u>Individual Protection Measures</u></b>	
<b>Hygiene Measures</b>	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Discard contaminated leather items. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Eye/Face Protection</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: chemical splash goggles.
<b><u>Skin Protection</u></b>	
<b>Hand Protection</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Recommended gloves: Neoprene PVC disposable Butyl-rubber Nitrile rubber
<b>Body Protection</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Long sleeve shirts and pants without cuffs are minimal recommended.
<b>Other Skin Protection</b>	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<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.

## 9. Physical and Chemical Properties

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<b>Physical State</b>	Liquid
<b>Color</b>	Light amber
<b>Odor</b>	Ammonia-like odor
<b>pH</b>	Not available
<b>Melting Point</b>	Not applicable
<b>Boiling Point</b>	Not applicable

## 9. Physical and Chemical Properties

Specific Gravity	1.0
Solubility in Water	Negligible
Evaporation Rate	Slower than ether
Vapor Pressure	Not available
Vapor Density (Air = 1)	Heavier than air
VOC Content	None
Viscosity	72 CPS

## 10. Stability and Reactivity

<b>Reactivity</b>	No specific test data related to reactivity is available for this product or its ingredients.
<b>Chemical Stability</b>	Stable under normal conditions.
<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 a large mass as the ensuing exothermic reaction may produce heat, smoke and hazardous decomposition products. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.
<b>Incompatible Materials</b>	Strong oxidizing agents. Mineral acids Organic acids Sodium hypochlorite Reactive metals (e.g. sodium, calcium, zinc etc.).
<b>Hazardous Decomposition Products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Toxic fumes may be evolved when product is burned. Decomposition products may include: Nitric acid Ammonia Nitrogen oxides (NO <sub>x</sub> ) Carbon oxides (CO, CO <sub>2</sub> ) Aldehydes Flammable hydrocarbon fragments Note: Nitrogen oxide can react with water vapors to form corrosive nitric acid. N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes into contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations.
<b>Possibility of Hazardous Reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological Information

### Information on Toxicological Effects

#### Acute Toxicity

Component	CAS No	Result	Species	Dose	Exposure
Proprietary	N/A	LD50 Oral	Rat	930 mg/kg	-
		LD50 Dermal	Rabbit	2,000 mg/kg	-
		LC50 Inhalation	Rat (female)	0.8 mg/l	4 h
Polyoxypropylenediamine	Proprietary	LD50 Oral	Rat	2,885.3 mg/kg	-
		LD50 Dermal	Rabbit	2,979.7 mg/kg	-

## 11. Toxicological Information

### Irritation/Corrosion

Component	CAS No	Test	Species	Result	Exposure
Proprietary Amine Mixture	N/A	Skin	Rat	Corrosive	4 h
		Eye	Rabbit	Severe irritant	24 h
Polyoxypropylenediamine	9046-10-0	Skin	Rabbit	Corrosive	4h
		Eye	Rabbit	Corrosive	24h

### Sensitization

Component	CAS No	Test	Species	Result	Exposure
Aliphatic/Aromatic Amine	N/A	Skin	Mouse	Sensitizing	-

### Carcinogenicity

No data is available for this product.

### Reproductive Toxicity

In vitro tests on mammalian-animal subject showed mutagenic effects

### Teratogenicity

No data is available for this product.

### Specific Target Organ Toxicity (single exposure)

No data is available for this product.

### Specific Target Organ Toxicity (repeat exposure)

No data is available for this product.

### Aspiration Hazard

No data is available for this product.

### Information on likely routes of exposure

Inhalation, dermal.

### Additional Information

The aliphatic/aromatic amine blend is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eye and skin.

## 12. Ecological Information

### Ecotoxicity

Component	CAS No	Test	Species	Dose	Exposure
Aliphatic/Aromatic Amine Blend	N/A	LC50	Fish	87.6 mg/l	96 h
		EC50	Daphnia magna (water flea)	15.2 mg/l	48 h
Polyoxypropylenediamine	Trade Secret	LC50	Fish	>15 mg/l	96 h
		EC50	Daphnia	80 mg/l	48 h



## 12. Ecological Information

### Persistence and Degradability

#### Biodegradability

No data is available on the product itself. N-Aminoethylpiperazine, 1,3-Bis(aminomethyl)benzene and polyoxypropylenediamine are not readily biodegradable.

#### Bioaccumulative Potential

Component	LogP <sub>ow</sub>	BCF	Potential
Aliphatic/Aromatic Amine Blend	-1.48	-	Low
Polyoxypropylenediamine	1.34	-	Low

### Mobility in Soil

#### Soil/water Partition Coefficient (K<sub>oc</sub>)

Not available.

#### Other Adverse Effects

No known significant effects or critical hazards.

## 13. Disposal Considerations

### Other Adverse Effects

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14. Transport Information

	DOT Classification	IMDG	IATA
UN Number	2735	2735	2735
UN Proper Shipping Name	Polyamines, liquid, corrosive n.o.s. (Aliphatic amines, 1,3-Bis(aminomethyl)benzene)	Polyamines, liquid, corrosive n.o.s. (Aliphatic amines, 1,3-Bis(aminomethyl)benzene)	Polyamines, liquid, corrosive n.o.s. (Aliphatic amines, 1,3-Bis(aminomethyl)benzene)
Transport Hazard Classes	8	8	8
Packing Group	II	II	II
Environmental Hazards	YES	YES	YES
Additional Information	-	EMS: F-A, S-B	-

### 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

### U.S. Federal Regulation

**United States Inventory (TSCA 8b):** All components are listed or exempted.

### DSL Status

All components of this product are on the Canadian DSL list.

## 15. Regulatory Information

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SARA 302	No chemicals in this material are subject to reporting levels established by SARA Title III, Section 302.
SARA 311/312 Hazards	Acute Health Hazard, Chronic Health Hazard.
SARA 313	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 31
California Prop 65	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

## 16. Other Information

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### HMIS Rating

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

### History

Date of Printing	12/21/15
Date of Issue/Date of Revision	12/21/15
Date of Previous Issue	None.
Prepared By	N. Kim

References None.

### Disclaimer

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