

## 1. Product Identification

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Product name	E-WOOD Part A
SDS Number	1600A00
Product type	Epoxy Resin Mixture
Recommended use of the chemical and restrictions on use	
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	<a href="http://www.systemthree.com">www.systemthree.com</a>
Email	<a href="mailto:support-08@systemthree.com">support-08@systemthree.com</a>
Emergency Contact	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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Appearance/Odor	White paste with little or no odor.
Classification of substance or mixture/Signal word	WARNING. SKIN CORROSION/IRRITATION Category 2 SKIN SENSITIZATION Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION Category 2 CHRONIC AQUATIC TOXICITY Category 2

### GHS Label Elements

#### Hazard Pictograms



### Hazard statements

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.

### Precautionary Statements

#### Prevention

P261 Avoid breathing fumes/vapors.  
P264 Wash hands and exposed skin thoroughly after handling.  
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.

#### Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

**Storage**

P405 Store locked up.

**Disposal**

P501 Disposal of contents/container to be specified in accordance with regulations.

**General**

Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**OSHA/HCS status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Hazards not otherwise classified (HNOC)**

None known.

### 3. Composition/Information On Ingredients

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Chemical Name	CAS Number	Content (%)
Diglycidyl Ether of Bisphenol A (DGEBCA)	25068-38-6	60-70 %

Any concentration shown as a range is due to batch variation in the petroleum source used.

**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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**Inhalation**

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. Get medical attention if adverse health effects persist or are severe. 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.

**Skin contact**

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.

**Eye contact**

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. Get medical attention. Suitable emergency eye wash facility should be available in work area.

**Ingestion**

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. 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. Get medical attention if adverse health effects persist or are severe. 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.

**Most important symptoms/effects, acute and delayed** **Eye Contact**

Causes serious eye irritation. Adverse symptoms may include the following: Pain or irritation, watering, redness.

**Inhalation**

May cause respiratory irritation. Adverse symptoms may include the following: Respiratory tract irritation, coughing.

**Skin Contact**

Causes skin irritation. May cause an allergic skin reaction. Adverse symptoms may include the following: Irritation, redness.

**Ingestion**

Irritating to mouth, throat, and stomach.

**Indication of immediate medical attention and special treatment needed**

**Notes to Physician**

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific Treatments**

No specific treatment.

**Protection of First Responders**

No action taken shall be taken involving any personal risk without suitable training. If it is suspected that gas or vapors 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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## 5. Fire-Fighting Measures

**Suitable extinguishing media**

Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**

None known.

**Specific hazards arising from the chemical**

In a fire or if heated, a pressure increase will occur and the container may burst.

**Products of Combustion**

Decomposition products may include carbon monoxide, carbon dioxide, aldehydes, acids and halogenated compounds. Toxic fumes may be evolved when this product is burned.

**Special protective equipment and precautions for fire-fighters**

Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.

**Fire-fighting equipment/instructions**

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.

**Specific methods**

None known.

**General fire hazards**

None known.

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## 6. Accidental Release Measures

**Personal precautions**

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.

<b>Protective equipment</b>	Proper PPE includes: disposable gloves, eye protection and skin protection.
<b>Emergency procedures</b>	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".
<b>Methods and materials for containment/cleanup</b>	
<b>Small Spill</b>	Stop leak if without risk. Move containers from spill area. Absorb with an inert 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.
<b>Large Spill</b>	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with inert, 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.
<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 (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.
<b>General Occupational Hygiene</b>	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. See also Section 8 for additional information on hygiene measures.
<b>Precautions/Recommendations for safe/proper storage</b>	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.
<b>Chemical incompatibilities</b>	None known.

## 8. Exposure Controls/Personal Protection

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<b>Permissible exposure limit (OSHA)</b>	None established.
<b>Occupational exposure limits</b>	None established.
<b>Engineering controls</b>	Use only with adequate ventilation. 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.
<b>Individual protection measures/Personal protective equipment</b>	
<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>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.
<b>Skin 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. 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.
<b>General hygiene during/after use</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. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. Physical and Chemical Properties

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<b>Chemical family</b>	Epoxy resin
<b>Appearance</b>	Solid
<b>Physical State</b>	Solid
<b>Form</b>	Solid
<b>Color</b>	White

<b>Odor</b>	Little or no odor
<b>Odor threshold</b>	Not determined
<b>Density (Specific gravity)</b>	0.72 g/cm <sup>3</sup>
<b>Viscosity</b>	Not available
<b>pH</b>	Not available
<b>Melting point/freezing point</b>	Not applicable
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Flash point</b>	Not available
<b>Evaporation rate</b>	Slower than ether
<b>Flammability (solid, gas)</b>	Not available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper flammability limit (by volume)</b>	Not available
<b>Lower flammability limit (by volume)</b>	Not available
<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>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available

## 10. Stability And Reactivity

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<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	Stable.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions 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 a large mass as the ensuing exothermic reaction may produce heat, smoke and hazardous decomposition products. Caustic soda (sodium hydroxide) can induce vigorous polymerization at temperatures around 200 °C.
<b>Incompatible materials</b>	Strong oxidizing agents, sodium hydroxide, Lewis and mineral acids.
<b>Hazardous decomposition products</b>	Carbon monoxide, carbon dioxide, aldehydes and acids.

## 11. Toxicological Information

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### Information on Toxicological Effects

#### Acute Toxicity Acute Toxicity (cont.)

Component	CAS No	Result	Species	Dose	Exposure
4,4'- Isopropylidenediphenol- Epichlorohydrin Copolymer	25068-38-6	LD50 Oral	Rat	11,400 mg/kg	-

25068-38-6	LC50 Dermal	Rat	2000 mg/m <sup>3</sup>	4 h
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### Sensitization

Component	CAS No	Test	Species	Result	Exposure
4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer	25068-38-6	Skin	Rabbit	Moderate to Severe Irritation	-
	25068-38-6	Eye		Mild Irritation	-

<b>Carcinogenicity</b>	Not available
<b>Reproductive Toxicity</b>	Not available
<b>Teratogenicity</b>	Not available
<b>Specific Target Organ Toxicity (single exposure)</b>	Not available
<b>Specific Target Organ Toxicity (repeated exposure)</b>	Not available
<b>Aspiration Hazard</b>	Not available
<b>Information on the likely routes of exposure</b>	Not available

## 12. Ecological Information

### Ecotoxicity

Component	CAS No	Test	Species	Dose	Exposure
4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer	25068-38-6	LC50	Fish	1.3 mg/l	96 h
	25068-38-6	EC50	Water Flea	2.1 mg/l	48 h

<b>Biodegradability</b>	Not readily biodegradable (4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer).
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### Bioaccumulative Potential

Component	LogPow	BCF	Potential
4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer	2.64 – 3.78	3 – 31	Low

### Mobility in Soil

<b>Soil/water Partition Coefficient (K<sub>oc</sub>)</b>	Not available
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<b>Other Adverse Effects</b>	No known significant effects of critical hazards.
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## 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	IMDG	IATA
UN Number	Not regulated	3077	3077
UN Proper Shipping Name	-	Environmentally hazardous substance, solid, n.o.s. (Bisphenol-A Epichlorohydrin Resin)	Environmentally hazardous substance, solid, n.o.s. (Bisphenol-A Epichlorohydrin Resin)
Transport Hazard Class	-	9	9
Packing Group	-	III	III
Environmental Hazards	-	YES	YES
Additional Information	-	EmS: F-A S-F	ERG Code: 9L

### 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 Regulations

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

### DSL Status

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

### SARA 311/312 Hazards

Acute health hazard.

### California Prop. 65

None.

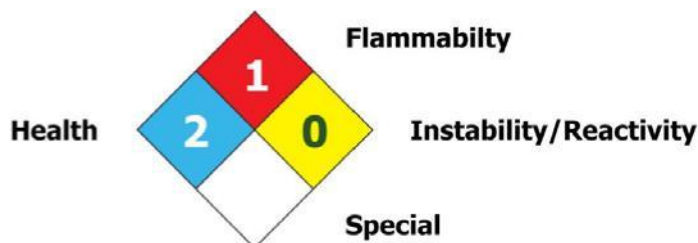
### Label for Supply



## 16. Other

### Information, Including Date Of Preparation Or Last Revision

National Fire Protection Association  
(U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**HMIS Rating**

Health	2
Flammability	1
Physical Hazards	0

**History**

Date of printing	10/23/15
Date of issue/Date of revision	10/23/15
Date of previous issue	None

**References**

Not available

**Abbreviations and Acronyms**

ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DOT: US Department of Transportation  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals  
HMIS: Hazardous Materials Identification System  
IARC: International Agency For Research on Cancer  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
IMDG: International Maritime Code for Dangerous Goods  
NFPA: National Fire Protection Association  
NIOSH: National Institute of Occupational Safety and Health  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
SARA: Superfund Amendments and Reauthorization Act  
VOC: Volatile Organic Compound

**Disclaimer**

**To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.**

**1. Product Identification**

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<b>Product name</b>	E-WOOD Part B
<b>SDS Number</b>	1600B00 Part B
<b>Product type</b>	Polyamide Resin Mixture
<b>Recommended use of the chemical and restrictions on use</b>	
<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 North, Suite 105 Auburn, WA 98001-2436 United States
<b>Telephone</b>	1-253-333-8118
<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) 1-800-424-9300 CHEMTREC (Outside the U.S.) 1-703-527-0585

**2. Hazard(s) Identification**

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<b>Appearance/Odor</b>	Tan paste with mild ammonia odor.
<b>Classification of substance or mixture/Signal word</b>	WARNING. ACUTE TOXICITY, ORAL Category 4 SKIN CORROSION/IRRITATION Category 2 SKIN SENSITIZATION Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION Category 2 ACUTE TOXICITY, INHALATION Category 4 SENSITIZATION, RESPIRATORY Category 1 SPECIFIC ORGAN TOXICITY, SINGLE EXPOSURE (Respiratory tract irritation) Category 1 ACUTE AQUATIC TOXICITY Category 1 CHRONIC AQUATIC TOXICITY Category 4

**GHS Label Elements**

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**Hazard Pictograms****Hazard statements**

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation. H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H400 Very toxic to aquatic life.  
H413 May cause long lasting harmful effects to aquatic life.

**Precautionary Statements**

<b>Prevention</b>	<p>P261 Avoid breathing fumes/vapors.  P264 Wash hands and exposed skin thoroughly after handling.  P271 Use only outdoors or in a well ventilated area.  P272 Contaminated work clothes should not be allowed out of the workplace.  P273 Avoid release to the environment.  P279 Do not eat, drink or smoke when using this product.  P280 Wear eye protection/face protection. Wear protective gloves.  P285 In case of inadequate ventilation wear respiratory protection.</p>
<b>Response</b>	<p>P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  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.  P312 Call a POISON CENTER or doctor/physician if you feel unwell.  P330 Rinse mouth.  P332 + P313 If skin irritation occurs: Get medical advice/attention.  P337 + P313 If eye irritation persists: Get medical advice/attention.  P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  P362 Take off contaminated clothing and wash before reuse.  P363 Wash contaminated clothing before reuse.  P391 Collect spillage.</p>
<b>Storage</b>	<p>P403 + P233 Store in a well ventilated place. Keep container tightly closed.  P405 Store locked up.</p>
<b>Disposal</b>	<p>P501 Disposal of contents/container to be specified in accordance with regulations.</p>
<b>General</b>	<p>Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.</p>
<b>OSHA/HCS status</b>	<p>This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).</p>
<b>Hazards not otherwise classified (HNOC)</b>	<p>None known.</p>

### 3. Composition/Information On Ingredients

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<b>Chemical Name</b>	<b>CAS Number</b>	<b>Content (%)</b>
Polyamide Polymer	Proprietary	< 15
Nonyl Phenol	84852-15-3	< 10
Benzyl Alcohol	100-51-6	< 20
Triethylenetetramine	112-24-3	< 2

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>Inhalation</b>	<p>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</p>
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occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if adverse health effects persist or are severe. 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.

**Skin contact**

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.

**Eye contact**

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. Get medical attention immediately. Suitable emergency eye wash facility should be available in work area.

**Ingestion**

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. 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. Get medical attention if adverse health effects persist or are severe. 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.

**Most important symptoms/effects,  
acute and delayed**

**Eye Contact**

Causes serious eye irritation. Extended exposure may result in irreversible damage to eye tissues. Adverse symptoms may include the following: Pain, irritation, watering, redness or combination of noted symptoms.

**Inhalation**

May cause respiratory irritation. Adverse symptoms may include the following: Respiratory tract irritation, coughing. Severe or extended exposure may induce central nervous system (CNS) effects: headache, nausea, dizziness, confusion, breathing difficulties.

**Skin Contact**

Causes skin irritation. May cause an allergic skin reaction. 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. Adverse symptoms may include the following: Irritation and/or redness. Severe or extended exposure may result in absorption through skin which may induce central nervous system (CNS) effects: headache, nausea, dizziness, confusion, breathing difficulties.

**Ingestion**

Irritating to mouth, throat, and stomach. Adverse symptoms may include the following: Irritation/damage of mucous membranes. May cause central nervous system (CNS) effects: headache, nausea, dizziness, confusion, breathing difficulties.

**Indication of immediate  
medical attention and special  
treatment needed**

**Notes to Physician**

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific Treatments**

No specific treatment.

**Protection of First Responders**

No action taken shall be taken involving any personal risk without suitable training. If it is suspected that gas or vapors 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

## 5. Fire-Fighting Measures

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**Suitable extinguishing media**

Use an extinguishing agent suitable for the surrounding fire.  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical, dry sand, limestone powder

**Unsuitable extinguishing media**

Water (spray or stream).

**Specific hazards arising from the chemical**

In a fire or if heated, a pressure increase will occur and the container may burst. See also "Products of Combustion" in this section and Section 10.

**Products of Combustion**

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 firefighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Ammonia gas may be liberated at high temperatures. In the case of incomplete combustion, an increased formation of oxides of nitrogen (NO<sub>x</sub>) is to be expected. Burning produces noxious and toxic fumes.

**Special protective equipment and precautions for fire-fighters**

Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.

**Fire-fighting equipment/instructions**

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.

**Specific methods**

None known.

**General fire hazards**

None known.

## 6. Accidental Release Measures

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**Personal precautions**

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.

**Protective equipment**

Proper PPE includes: disposable gloves, eye protection and skin protection.

**Emergency procedures**

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".

**Methods and materials for containment/cleanup  
Small Spill**

Stop leak if without risk. Move containers from spill area. Absorb with an inert 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. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with inert, 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.

### 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).

## 7. Handling and Storage

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### Precautions for safe handling

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. 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 (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.

### Chemical incompatibilities

None known.

## 8. Exposure Controls/Personal Protection

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### Permissible exposure limit (OSHA)

None established.

### Occupational exposure limits

List	Components	CAS-No.	Type	Value
<b>OARS</b>	Benzyl Alcohol	100-51-6	WEEL	10 ppm
	Triethylenetetramine	112-24-3	WEEL	1 ppm

<b>Engineering controls</b>	Use only with adequate ventilation. 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.
<b>Individual protection measures/Personal protective equipment</b>	
<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>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.
<b>Skin 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. 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.
<b>General hygiene during/after use</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 goods. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. Physical and Chemical Properties

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<b>Chemical family</b>	Polyamide curing agent
<b>Appearance</b>	Solid
<b>Physical State</b>	Solid
<b>Form</b>	Solid
<b>Color</b>	Tan
<b>Odor</b>	Mild ammonia odor

<b>Odor threshold</b>	Not determined
<b>Density (Specific gravity)</b>	0.72 g/cm <sup>3</sup>
<b>Viscosity</b>	Not available
<b>pH</b>	Not available
<b>Melting point/freezing point</b>	Not applicable
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Flash point</b>	Not available
<b>Evaporation rate</b>	Slower than ether
<b>Flammability (solid, gas)</b>	Not available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper flammability limit (by volume)</b>	Not available
<b>Lower flammability limit (by volume)</b>	Not available
<b>Material VOC</b>	None
<b>Vapor density (AIR =1)</b>	Heavier than air
<b>Relative density</b>	Not determined
<b>Solubility</b>	Negligible, in water
<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available

## 10. Stability And Reactivity

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<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	Stable.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions 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 a large mass as the ensuing exothermic reaction may produce heat, smoke and hazardous decomposition products.
<b>Incompatible materials</b>	Organic and mineral acids. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Reactive metals (e.g. sodium, calcium, zinc, etc). Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Materials reactive with hydroxyl compounds. Oxidizing agents, amines, bases and reducing agents. Nitrous acid and other nitrosating agents. CAUTION! N-nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations.
<b>Hazardous decomposition products</b>	Organic acid vapors, nitric acid, ammonia, nitrogen and carbon oxides, nitrosamine and aldehydes. Nitrogen oxide can react with water vapors to form corrosive nitric acid.



## 11. Toxicological Information

### Information on Toxicological Effects

#### Acute Toxicity

Component	CAS No	Result	Species	Dose	Exposure
Nonyl Phenol	84852-15-3	LD50 Dermal	Rabbit	2,031 mg/kg	-
	84852-15-3	LD50 Oral	Rat	1,412 mg/kg	-
Benzyl Alcohol	100-51-6	LD50 Oral	Rat	1,620 mg/kg	-
Triethylenetetramine	112-24-3	LD50 Oral	Rat	300 – 2,000 mg/kg	-
	112-24-3	LD50 Dermal	Rabbit	1,000 – 2,000 mg/kg	-

#### Sensitization

Component	CAS No	Test	Species	Result	Exposure
Triethylenetetramine	112-24-3	Skin	Guinea Pig	Causes burns May cause sensitization by skin contact.	-

#### Carcinogenicity

Not available

#### Reproductive Toxicity

Not available

#### Teratogenicity

Not available

#### Specific Target Organ Toxicity (single exposure)

Not available

#### Specific Target Organ Toxicity (repeated exposure)

Not available

#### Aspiration Hazard

Not available

#### Information on the likely routes of exposure

Not available

## 12. Ecological Information

### Ecotoxicity

Component	CAS No	Test	Species	Dose	Exposure
Nonyl Phenol	84852-15-3	LC50	Fathead minnow	0.128 mg/l	96 h
	84852-15-3	EC50	Water Flea	0.0848 – 0.19 mg/l	48 h
Benzyl Alcohol	100-51-6	LC50	Fathead minnow	460 mg/l	96 h
Triethylenetetramine	112-24-3	LC50	Fathead minnow	>100 mg/l	96 h

#### Biodegradability

Not readily biodegradable (Triethylenetetramine).

#### Bioaccumulative Potential

Component	LogPow	BCF	Potential
Nonyl Phenol	5.4	740	High

#### Mobility in Soil

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

Not available

#### Other Adverse Effects

No known significant effects of 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	IMDG	IATA
UN Number	Not regulated	3077	3077
UN Proper Shipping Name	-	Environmentally hazardous substance, solid, n.o.s. (Epoxy Resin)	Environmentally hazardous substance, solid, n.o.s. (Epoxy Resin)
Transport Hazard Class	-	9	9
Packing Group	-	III	III
Environmental Hazards	-	YES	YES
Additional Information	-	EmS: F-A S-F	ERG Code: 9L

### 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 Regulations

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

### DSL Status

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

### SARA 311/312 Hazards

Acute health hazard.

### California Prop. 65

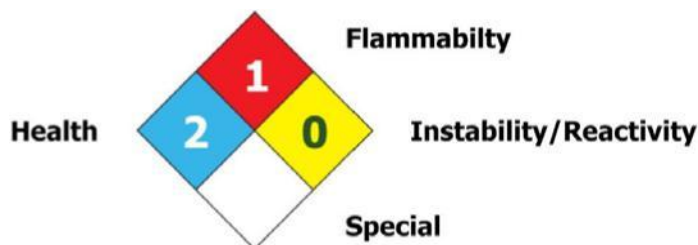
None.

### Label for Supply



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

National Fire Protection Association  
(U.S.A.)



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**HMIS Rating**

Health	2
Flammability	1
Physical Hazards	0

**History**

Date of printing	10/23/15
Date of issue/Date of revision	10/23/15
Date of previous issue	None

**References**

Not available

**Abbreviations and Acronyms**

ACGIH: American Conference of Governmental Industrial Hygienists  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 DOT: US Department of Transportation  
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals  
 HMIS: Hazardous Materials Identification System  
 IARC: International Agency For Research on Cancer  
 IATA: International Air Transport Association  
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
 IMDG: International Maritime Code for Dangerous Goods  
 NFPA: National Fire Protection Association  
 NIOSH: National Institute of Occupational Safety and Health  
 NTP: National Toxicology Program  
 OSHA: Occupational Safety and Health Administration  
 SARA: Superfund Amendments and Reauthorization Act  
 VOC: Volatile Organic Compound

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