

# **SYSTEMTHREE**

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## **Safety Data Sheets (SDS)**

**Updated: January 1, 2023**

This file contains Safety Data Sheets for SculpWood Max. This is a two-component system. It is imperative that you know whether you need information on the Resin or the Hardener.

Resin: Pages 2-10

Hardener: Pages 11-20

If this is a medical emergency, call 911 or your local poison control center. Seek medical attention.

For technical assistance, call System Three Technical Support at 253-333-8118 option 2.

These SDS are provided pursuant to 29 CFR 1910.1200(g).


**1. Product Identification**

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<b>Product name</b>	Sculpwood MAX Resin, Part A
<b>SDS Number</b>	1620A00
<b>Product type</b>	Epoxy Resin Mixture
<b>Recommended use of the chemical and restrictions on use</b>	Recommended for, but not limited to, the repair of damaged or rotted wood.
<b>Restrictions</b>	None known.
<b>Manufacturer/Supplier information</b>	
<b>Company name</b>	SYSTEM THREE RESINS, INC.
<b>Address</b>	8517 Commerce Place Dr NE Lacey, WA 98516 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>	CHEMTEL (U.S. and CANADA) 1-800-704-9215 CHEMTEL (Outside the U.S.) – Call Collect accepted +1-360-256-7365

**2. Hazard(s) Identification**

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<b>Classification of substance or mixture/Signal Word</b>	WARNING Skin Corrosion/Irritation – Category 2 Serious Eye Damage/Eye Irritation – Category 2 Skin Sensitization – Category 1 Specific Target Organ Toxicity (Single Exposure) [Respiratory tract irritation] – Category 3
<b><u>GHS Label Elements</u></b> <b>Hazard Pictograms</b>	
<b>Hazard Statements/Classification of substance or mixture</b>	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
<b>Precautionary statements</b>	
<b><u>Precautionary Statements</u></b> <b>Prevention</b>	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.
<b>Response</b>	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.
<b>Storage</b>	P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
<b>Disposal</b>	P405 Store locked up. P501 Disposal of contents/container to be specified in accordance with regulations.
<b>Hazards not otherwise classified (HNOC)</b>	None known.

### 3. Composition/Information On Ingredients

Chemical Name	CAS Number	Content (%)
Diglycidyl Ether of Bisphenol A	25068-38-6	50 – 60%
Neopentyl Glycol Diglycidyl Ether	17557-23-2	10-15%
Diglycidyl Ether of Bisphenol F	28064-14-4	3 – 8%

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 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 that 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>	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.
<b>Ingestion</b>	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.
<b>Inhalation</b>	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.

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

<b>Notes to physician</b>	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	No specific treatment.

## 5. Fire-Fighting Measures

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<b>Suitable extinguishing media</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous decomposition products</b>	Decomposition products may include carbon monoxide, carbon dioxide, aldehydes, acids and halogenated compounds. Toxic fumes may be evolved when this product is burned.
<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. Move containers from fire area if this can be done without risk.
<b>Special protective equipment for fire-fighters</b>	Fire fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.
<b>Further information</b>	None.

## 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. 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 Spills</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, watercourses, 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>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.

## 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. 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

**Special instructions for protection and hygiene**

selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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>	White Putty
<b>Physical State</b>	
<b>Form</b>	Putty
<b>Color</b>	White
<b>Odor</b>	Characteristic odor
<b>Density (Specific Gravity)</b>	0.96 g/cm <sup>3</sup>
<b>Viscosity</b>	>1,000,000 CPS @77°F
<b>pH</b>	N/A
<b>Melting point/freezing point</b>	N/A
<b>Initial boiling point and boiling range</b>	N/A
<b>Flash point</b>	N/A
<b>Evaporation rate</b>	Slower than ether
<b>Flammability (solid, gas)</b>	N/A
<b>Upper/lower flammability limit (by volume)</b>	N/A
<b>Upper flammability limit (by volume)</b>	N/A
<b>Lower flammability limit (by volume)</b>	N/A
<b>Material VOC</b>	N/A
<b>Vapor density</b>	Heavier than air
<b>Relative density</b>	Not determined
<b>Solubility in water</b>	Negligible
<b>Partition coefficient: n-octanol/water</b>	N/A
<b>Auto-ignition temperature</b>	N/A
<b>Decomposition temperature</b>	N/A

## 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.

**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 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.

**Incompatible materials**

Strong oxidizing agents, sodium hydroxide, Lewis and mineral acids.

**Hazardous decomposition products**

Carbon monoxide, carbon dioxide, aldehydes and acids.

**Other hazards**

None.

## 11. Toxicological Information

**Acute Health Hazard (components)**

No comprehensive data on product itself.

Component	Result	Species	Dose	Exposure
Diglycidyl Ether of Bisphenol A	LD50 Oral	Rat	11,400 mg/kg	-
	LD50 Dermal	Rat	2,000 mg/m <sup>3</sup>	4 h
Neopentyl Glycol Diglycidyl Ether	LD50 Oral	Rat	4,500 mg/kg	-
	LD50 Dermal	Rat	>2,000 mg/kg	-

**Irritation/Corrosion (components)**

No information on product itself.

Component	Result	Species	Test	Exposure
Diglycidyl Ether of Bisphenol A	Moderate to severe irritation	Rabbit	Skin	4 h
	Mild irritation	Rabbit	Eye	24 h
Diglycidyl Ether of Bisphenol F	Mild irritant	Rabbit	Skin	-
	Mild irritant	Rabbit	Eye	-

**Sensitization**

No information on product itself.

**Mutagenicity**

No information on product itself.

**Carcinogenicity**

No information on product itself.

**Reproductive Toxicity**

No information on product itself.

**Teratogenicity**

No information on product itself.

**Specific target organ toxicity (single exposure)**

No information on product itself.

Component	Category	Route of exposure	Target organs
Diglycidyl Ether of Bisphenol A	Category 3		Respiratory tract irritation
Neopentyl Glycol Diglycidyl Ether	Category 3		Respiratory tract irritation
Diglycidyl Ether of Bisphenol F	Category 3		Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

No information on product itself.

**Aspiration hazard**

No information on product itself.

**Potential acute health effects****Eye Contact**

Causes serious eye irritation.

**Inhalation**

May cause respiratory irritation.

**Skin Contact**

Causes severe skin irritation. May cause an allergic skin reaction.

**Ingestion**

Irritating to the mouth, throat, and stomach.

**Symptoms related to the physical, chemical and toxicological characteristics****Eye Contact**

Adverse symptoms may include the following:  
 Pain or irritation  
 Watering  
 Redness

**Inhalation**

Adverse symptoms may include the following:  
 Respiratory tract irritation  
 Coughing

**Skin Contact**

Adverse symptoms may include the following:  
 Irritation  
 Pain  
 Redness

**Ingestion**

No specific data

**Delayed and immediate effects and also chronic effects from short and long term exposure**

Not available.

**Potential chronic health effects****General**

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

**Carcinogenicity**

No known significant effects or critical hazards.

**Mutagenicity**

No known significant effects or critical hazards.

**Teratogenicity**

No known significant effects or critical hazards.

**Developmental effects**

No known significant effects or critical hazards.

**Fertility effects**

No known significant effects or critical hazards.

**Numerical measures of toxicity****Acute toxicity estimates (ATEmix)**

Not available.

**12. Ecological Information****Ecotoxicity**

No information on the product itself.

Component	Test	Species	Result	Exposure
Diglycidyl Ether of Bisphenol A	LC50	Fish	1.3 mg/l	96 h
	LC50	Daphnia	2.1 mg/l	48 h
Diglycidyl Ether of Bisphenol F	LC50	Fish	1.5 mg/l	96 h
	LC50	Daphnia	1.7 mg/l	48 h
	Chronic NOEC	Daphnia	0.3 mg/l	21 d

**Persistence and degradability**

No information on the product itself.

Component	Test	Period	Result
Diglycidyl Ether of Bisphenol A	OECD 302B	28 d	12%
Diglycidyl Ether of Bisphenol F	OECD 301F Derived	28 d	5%

**Bioaccumulative Potential**

No information on the product itself.

Component	LogPow	BCF	Potential
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Diglycidyl Ether of Bisphenol A	2.64 – 3.78	3 – 31	Low
Diglycidyl Ether of Bisphenol F	3.232	31	Low
Neopentyl Glycol Diglycidyl Ether	0.23	-	Low

#### Mobility in Soil

<b>Soil/water partition coefficient (KOC)</b>	No information on product itself.
<b>Other adverse effects</b>	No known significant effects or critical hazards.

### 13. Disposal Considerations

<b>Waste from residues/ unused products</b>	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. Product should not be allowed to enter drains, watercourses 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
<b>DOT</b>		Non-regulated		
<b>TDG</b>		Non-regulated		
<b>IMO/IMDG</b>	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorohydrin Resin)	Class 9 III	
<b>IATA</b>	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorohydrin Resin)	Class 9 III	

\*PG: Packing group

<b>Special precautions for user:</b>	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.
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### 15. Regulatory Information

#### UNITED STATES

<b>U.S. Federal Regulations</b>	<b>United States – TSCA 12(b) – Chemical export notification:</b> None Required. <b>United States – TSCA 5(a)2 – Final significant new use rules:</b> Not Listed. <b>United States – TSCA 5(a)2 – Proposed significant new use rules:</b> Not Listed. <b>United States – TSCA 5(e) – Substance consent order:</b> Not listed.
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**Clean Air Act – Ozone Depleting Substances (ODS)** None.  
**Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)** None.  
**California Prop. 65**

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer. WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other productive harm.

Ingredient Name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Oxirane, 2-(phenoxyethyl)-	Yes	No	5 µg/day	No
Oxirane, 2-(chloromethyl)-	Yes	Yes	9 µg/day	No

**EPA SARA 302 Extremely Hazardous Substances** None required.  
**EPA SARA 302/304/311/312 Hazardous Chemicals** Acute Health Hazard  
**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** None required.  
**CEPA Toxic substances** None required.

**INTERNATIONAL REGULATIONS**

**International Lists**

- Australia inventory (AICS):** All components are listed or exempted.
- Canada inventory:** All components are listed or exempted.
- 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 2
Flammability 1
Physical Hazard 0

**Date of Preparation** August 4, 2021  
**Date of Last Revision** May 21, 2021  
**Revision #** 1  
**More Information** 1-253-333-8118  
**Prepared by** System Three Resins Inc.

The information contained herein is based on the data available to us and is believed to be correct. However, System Three Resins, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. System Three assumes no responsibility for injury from the use of the product described herein.

## 1. Product Identification

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Product name	Sculpwood MAX Hardener, Part B	
SDS Number	1620B00	
Product type	Polyamide Resin Mixture	
Recommended use of the chemical and restrictions on use	Recommend for, but not limited to, the restoration and repair of damaged or rotted wood.	
Restrictions	None known.	
Manufacturer/Supplier information		
Company name	SYSTEM THREE RESINS, INC.	
Address	8517 Commerce Place Dr NE Lacey, WA 98516 United States	
Telephone	1-253-333-8118	
Website	www.systemthree.com	
Email	support@systemthree.com	
Emergency Contact	CHEMTEL (U.S. and CANADA)	1-800-704-9215
	CHEMTEL (Outside the U.S.) – Call Collect accepted	+1-360-256-7365

## 2. Hazard(s) Identification

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Classification of substance or mixture/Signal Word	WARNING. Skin Corrosion/Irritation – Category 2 Serious Eye Damage/Eye Irritation – Category 2 Skin Sensitization – Category 1 Acute Aquatic Toxicity – Category 1 Chronic Aquatic Toxicity – Category 1
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**GHS Label Elements**

**Hazard Pictograms**



Hazard Statements/Classification of substance or mixture	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H400 Very toxic to aquatic life. H413 May cause long lasting harmful effects to aquatic life.
Precautionary statements	
<b><u>Precautionary Statements</u></b>	P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/fume/gas/mist/vapors/spray. 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
<b><u>Prevention</u></b>	

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.

**Response**

P314 Get medical advice/attention if you feel unwell.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P302 + P352 IF ON SKIN: Wash with plenty of 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.

P337 + P313 IF eye irritation persists: Get medical advice/attention.

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

P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

**Disposal**

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

**Hazards not otherwise classified (HNOC)**

None known.

### 3. Composition/Information On Ingredients

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Chemical Name	CAS Number	Content (%)
Polyamide Polymer	Proprietary	15 – 20%
Benzyl Alcohol	100-51-6	15 – 20%
Nonyl Phenol	84852-15-3	5 – 10%
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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**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.

#### **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.

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

##### **Notes to physician**

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

##### **Specific treatments**

No specific treatment.

## **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.

#### **Hazardous decomposition products**

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 watercourses. 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 actions for fire-fighters**

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.

#### **Special protective equipment 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.

#### **Further information**

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.

#### **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, watercourses, 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.

**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.

## 8. Exposure Controls/Personal Protection

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**Occupational Exposure Limits**

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

**Appropriate engineering controls**

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.

**Environmental exposure controls**

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.

**Individual protection measures/Personal protective equipment**

**Eye/face protection**

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 safety 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>Special instructions for protection and hygiene</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>	Epoxy putty
<b>Physical State</b>	
<b>Form</b>	Solid putty
<b>Color</b>	Tan
<b>Odor</b>	Mild ammonia odor
<b>Density (Specific Gravity)</b>	0.9 g/cm <sup>3</sup>
<b>Viscosity</b>	>1,000,000CPS @77°F
<b>pH</b>	N/A
<b>Melting point/freezing point</b>	N/A
<b>Initial boiling point and boiling range</b>	N/A
<b>Flash point</b>	N/A
<b>Evaporation rate</b>	Slower than ether
<b>Flammability (solid, gas)</b>	N/A
<b>Upper/lower flammability limit (by volume)</b>	N/A
<b>Upper flammability limit (by volume)</b>	N/A
<b>Lower flammability limit (by volume)</b>	N/A
<b>Material VOC</b>	None
<b>Vapor density</b>	Heavier than air

Relative density	Not determined
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 under normal conditions.
Chemical Stability	Stable
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 a large mass as the ensuing exothermic reaction may produce heat, smoke and hazardous decomposition products.
Incompatible materials	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.
Hazardous decomposition products	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.
Other hazards	None known.

## 11. Toxicological Information

**Acute Health Hazard (components)** No comprehensive data on product itself.

Component	Result	Species	Dose	Exposure
Nonyl Phenol	LD50 Dermal	Rabbit	2,031 mg/kg	-
	LD50 Oral	Rat	1,412 mg/kg	-
Benzyl Alcohol	LD50 Oral	Rat	1,620 mg/kg	-
Triethylenetetramine	LD50 Oral	Rat	300 – 2,000 mg/kg	-
	LD50 Dermal	Rabbit	1,000 – 2,000 mg/kg	-

**Irritation/Corrosion (components)** No information on the product itself.

Component	Test	Result	Species
Benzyl Alcohol	OECD 405	Eyes - Irritant	Rabbit
Triethylenetetramine		Severe eye irritation	Rabbit



		Severe skin irritation	Rabbit – 24 h
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**Sensitization** No information on the product itself.

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

**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 irritation.
- Inhalation** May cause respiratory irritation.
- Skin Contact** Causes severe skin irritation. May cause a severe allergic reaction.
- Ingestion** Irritating to mouth, throat, and stomach.

**Symptoms related to the physical, chemical and toxicological characteristics**

- 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.

**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 significant effects or critical hazards.
<b>Mutagenicity</b>	No significant effects or critical hazards.
<b>Teratogenicity</b>	No significant effects or critical hazards.
<b>Developmental effects</b>	No significant effects or critical hazards.
<b>Fertility effects</b>	No significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates (ATEmix)

Route	ATE value
Oral	4539.5 mg/kg
Dermal	10,692.3 mg/kg
Inhalation (vapors)	45.58 mg/l

## 12. Ecological Information

### Ecotoxicity

No information on the product itself.

Component	Test	Species	Result	Exposure
Nonyl Phenol	LC50	Fathead minnow	0.128 mg/l	96 h
	EC50	Water Flea	0.0848 – 0.19 mg/l	48 h
Benzyl Alcohol	LC50	Fathead minnow	460 mg/l	96 h
Triethylenetetramine	LC50	Fathead minnow	>100 mg/l	96 h

### Persistence and degradability

No information on the product itself.

Component	Test	Period	Result
Nonyl Phenol	EPA OPPTS	63 days	100%
	OECD	56 days	50%
	OECD 301B Ready Biodegradability – CO2 Evolution Test	35 days	48.2%
Benzyl Alcohol	Readily biodegradable		

### Bioaccumulative Potential

No information on the product itself.

Component	LogPow	BCF	Potential
Nonyl Phenol	5.4	740	High
Benzyl Alcohol	1.05	1.37 (calculated)	Low

### Mobility in Soil

No information on the product itself.

**Soil/water partition coefficient (KOC)**

Data not available.

**Other adverse effects**

No known significant effects or critical hazards.

## 13. Disposal Considerations

### **Waste from residues/ unused products**

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.

**Contaminated packaging**

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**

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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		Non-regulated		
TDG		Non-regulated		
IMO/IMDG	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Nonyl Phenol)	Class 9 III	Marine pollutant
IATA	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Nonyl Phenol)	Class 9 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**

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**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 %
Phenol	0 - 1

**Pennsylvania – RTK**

Phenol

**California Prop. 65**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

**EPA SARA 302 Extremely Hazardous Substances**

None.

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

Acute Health Hazard

SARA 313  
Form R – Reporting requirements

CERCLA Hazardous substances

United States inventory (TSCA 8b)

**CANADA**

WHMIS (Canada)

Canadian NPRI  
CEPA Toxic substances

**INTERNATIONAL REGULATIONS**

International Lists

Product Name		Concentration %		
Phenol		0 - 1		
Component	%	Section 304 CERCLA Hazardous Substance	CERCLA Reportable Quantity (Lbs)	Product Reportable Quantity (Lbs)
Phenol	1	Listed		

All components are listed or exempted.

Class D-2B: Material causing other toxic effects (Toxic).

None required.

None required.

**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



**Date of Preparation** August 4<sup>th</sup>, 2021  
**Date of Last Revision** May 21<sup>st</sup>, 2021  
**Revision #** 1  
**More Information** 1-253-333-8118  
**Prepared by** System Three Resins Inc.

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