

## 1. Product Identification

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Product name	General Purpose Hardener #1	
SDS Number	0101B00	
Product type	Curing Agent	
Manufacturer/Supplier information		
Company name	SYSTEM THREE RESINS, INC.	
Address	3500 W. Valley Hwy, Suite Suite 105 Auburn, WA 98991-2436 United States	
Telephone	1-253-333-8118	
Website	www.systemthree.com	
Email	support-08@systemthree.com	
Emergency Contact	CHEMTREC (U.S. and CANADA)	1-800-424-9300
	CHEMTREC (Outside the U.S.)	1-703-527-0585

## 2. Hazard(s) Identification

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Classification of substance or mixture/Signal Word

DANGER

GHS Label Elements  
Hazard Pictograms



Hazard Statements/Classification of substance or mixture

H302 Harmful if swallowed  
H314 Corrosive to skin  
H317 May cause sensitization by skin contact.  
H361fd Reproductive toxicity  
H400 Acute Hazard to aquatic life  
H410 Chronic hazard to aquatic life

Precautionary statements

Precautionary Statements  
Prevention

P280 Wear protective gloves. Wear eye or face protection.  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.

Response

P308 + P313 If exposed or concerned: Get medical attention.

Storage

P401 Store at room temperature in a well ventilated area.

Disposal

P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.

### 3. Composition/Information On Ingredients

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Chemical Name	CAS Number	Content (%)
Aliphatic/Cycloaliphatic Amine Mixture	Trade Secret	20-40%
Triethanolamine	102-71-6	1-5%
Nonyl Phenol	25154-52-3	40-60%

### 4. First-Aid Measures

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<b>General advice</b>	Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
<b>Skin contact</b>	Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Flush immediately with copious amounts of water. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing.
<b>Eye contact</b>	Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical attention. If medical care is not promptly available, continue to irrigate for one hour.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side
<b>Inhalation</b>	Move to fresh air.

### 5. Fire-Fighting Measures

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<b>Suitable extinguishing media</b>	Alcohol-resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical Water Fog
<b>Specific hazards arising from the chemical</b>	Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
<b>Special protective equipment and precautions for fire-fighters</b>	
<b>Fire-fighting equipment/instructions</b>	Avoid contact with skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
<b>Further information</b>	Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### 6. Accidental Release Measures

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<b>Personal precautions</b>	Wear proper protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing.
<b>Emergency procedures</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Construct a dike to prevent spreading.

<b>Methods and materials for containment/cleanup</b>	Stop spill at source, dike area to prevent spreading, place in proper waste container. Contact Chemtrec for further instruction. Approach suspected leak areas with caution.
<b>Environmental precautions</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways.

## 7. Handling And Storage

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<b>Precautions for safe handling</b>	Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.
<b>Precautions/Recommendations for safe/proper storage</b>	Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep from freezing.

## 8. Exposure Controls/Personal Protection

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<b>Engineering controls</b>	Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.
<b>Individual protection measures/Personal protective equipment</b>	
<b>Eye/face protection</b>	Splash-proof goggles or safety spectacles with side shields are recommended. Always wear eye protection when sanding cured epoxy resins to avoid dust in eyes.
<b>Hand protection</b>	Always wear impervious gloves: butyl rubber, nitrile rubber, Neoprene, PVC disposable gloves,
<b>Skin protection</b>	Wear clean, body-covering clothing to avoid skin contact.
<b>Environmental exposure controls</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter sewers or waterways.
<b>Special instructions for protection and hygiene</b>	Discard contaminated leather articles. Remove contaminated clothing. Wash at the end of each work shift and before eating smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

## 9. Physical And Chemical Properties

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<b>Chemical family</b>	Amine Curing Agent
<b>Appearance</b>	Clear liquid
<b>Physical State</b>	Pourable Liquid
<b>Form</b>	Pourable Liquid
<b>Color</b>	Straw Yellow
<b>Odor</b>	Ammoniacal
<b>Relative density</b>	0.9 – 1.0
<b>Viscosity</b>	110-120 cps at 77 °F (25 °C)
<b>pH</b>	Alkaline
<b>Initial boiling point and boiling range</b>	N/A

Flash point	N/A
Vapor pressure	N/A

## 10. Stability And Reactivity

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<b>Chemical Stability</b>	Stable under normal conditions.
<b>Incompatible materials</b>	Organic acids (i.e. acetic acid, citric acid, etc.). Mineral acids. Sodium hypochlorite. Oxidizing agents.
<b>Hazardous decomposition products</b>	Nitric acid Ammonia Aldehydes Nitrogen oxides (NO <sub>x</sub> ) Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide. Carbon dioxide (CO <sub>2</sub> ).

## 11. Toxicological Information

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### Acute Health Hazard (components)

\*No comprehensive data (ingestion, inhalation, dermal) on mixture (product).

#### Component 1

<b>Acute Oral Toxicity</b>	LD50: 1.080 mg/kg	Rabbit
<b>Inhalation</b>	LC50 (4 h): > 0.07 - < 0.3 mg/l	Rat
<b>Acute Dermal Toxicity</b>	LD50: 1090 mg/kg	Rabbit

#### Component 2

<b>Acute Oral Toxicity</b>	LD50: 2097 mg/kg	Rabbit
<b>Acute Dermal Toxicity</b>	LD50: 866 mg/kg	Rabbit
<b>Chronic Dermal Toxicity</b>	Sensitizing	Guinea Pig

#### Component 3

<b>Acute Oral Toxicity</b>	LD50: 2885 mg/kg	Rat
<b>Inhalation (Vapor)</b>	LC50: > 0.74 mg/l	Rat
<b>Acute Dermal Toxicity</b>	LD50: 2979 mg/kg	Rabbit

There is no comprehensive data showing potential carcinogenicity by OSHA, NTP, or IARC.

## 12. Ecological Information

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### Ecotoxicity

<b>Aquatic toxicity</b>	No data on the product itself		
<b>Component 1</b>	No data on the component itself.		
<b>Component 2</b>	Acute EC50	Daphnia	58 mg/ml
	Acute LC50	Fish	2190 mg/ml
<b>Component 3</b>	Acute EC50	Daphnia	80mg/l

	Acute LC50	Fish	772mg/l
<b>Persistence and degradability</b>	No data on product itself.		
<b>Component 1</b>	No data on the component itself.		
<b>Component 2</b>	OECD data shows not readily biodegradable.		
<b>Component 3</b>	OECD data shows not readily biodegradable.		
<b>Bioaccumulative Potential</b>	No data on product itself.		
<b>Component 1</b>	No data on component itself.		
<b>Component 2</b>	logPow	-1.48	BCF not known
<b>Component 3</b>	logPow	1.34	BCF not known
<b>Mobility in Soil</b>	No data on the product itself		

### 13. Disposal Considerations

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<b>Waste from residues/ unused products</b>	Product should not be allowed to enter drains, water courses or the soil; dispose of this material and its containers in a safe way. Contact supplier if guidance is required.
<b>Contaminated packaging</b>	Dispose of container and unused contents in accordance with federal, state and local requirements.

### 14. Transport Information

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**DOT, IATA,IMDG, TDG**

<b>UN/ID No.</b>	UN2922
<b>Proper shipping name</b>	Corrosive Liquid (Poison)
<b>Class or Division</b>	8(6.1)
<b>Packing group</b>	II
<b>Label(s)</b>	8
<b>Marine Pollutant</b>	Yes

**Note\*\*** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment. For more information contact System Three technical support.

<b>Further Information</b>	The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact System Three technical support.
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### 15. Regulatory Information

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**UNITED STATES**

**Toxic Substance Control Act (TSCA) 12(b) – Components:** None.

**OSHA Hazard Communication Standard (29 CFR 1910.1 200) Hazard Classes:** Poison, Corrosive, Sensitizer

**California Prop. 65:** This product does not contain any chemicals known to the state of California to cause cancer, birth defects or any other harm.

**EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification:** None

**EPA SARA Title III Section 313 (40 CFR 372) Component(s) above ‘de minimis’ level:** None.

**WHMIS Hazard Classification:** Class D2B Toxic Material.

## INTERNATIONAL REGULATIONS

### International Lists

**USA inventory (TSCA 8b):** Included on inventory  
**EU (EINECS):** Included on EINECS inventory or polymer substance, monomers  
**Australia inventory (AICS):** Included on inventory  
**Canada inventory (DSL):** Included on inventory  
**Japan inventory (ENCS):** Included on inventory  
**China inventory (IECSC):** Included on inventory  
**South Korea inventory (ECL):** Included on inventory

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

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### HMIS Rating

Health	3
Flammability	1
Physical Hazard	0

### Date of Preparation

July 6, 2015

### More Information

1-253-333-8118

### Prepared By

J. Bartlett, System Three Resins Inc.

**1. Product Identification**

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**Product name** General Purpose Hardener #2**SDS Number** 0102B00**Product type** Curing Agent**Manufacturer/Supplier information****Company name** SYSTEM THREE RESINS, INC.**Address** 3500 W. Valley Hwy, Suite  
Suite 105  
Auburn, WA 98991-2436  
United States**Telephone** 1-253-333-8118**Website** [www.systemthree.com](http://www.systemthree.com)**Email** support-08@systemthree.com**Emergency Contact** CHEMTREC (U.S. and CANADA) 1-800-424-9300  
CHEMTREC (Outside the U.S.) 1-703-527-0585**2. Hazard(s) Identification**

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**Classification of substance or mixture/Signal Word**

CAUTION

**GHS Label Elements**  
Hazard Pictograms**Hazard Statements/Classification of substance or mixture**H317 May cause sensitization by skin contact.  
H330 Fatal if inhaled  
H361 Suspected of damaging fertility or the unborn child**Precautionary statements****Precautionary Statements**  
PreventionP280 Wear protective gloves. Wear eye or face protection.  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.**Response**

P308 + P313 If exposed or concerned: Get medical attention.

**Storage**

P401 Store at room temperature in a well ventilated area.

**Disposal**

P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.

### 3. Composition/Information On Ingredients

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Chemical Name	CAS Number	Content (%)
Aliphatic/Cycloaliphatic Amine Mixture	Trade Secret	40-60%
Nonyl Phenol	25154-52-3	40-60%

### 4. First-Aid Measures

---

<b>General advice</b>	If individual's breathing is labored or has stopped, seek medical attention immediately. If victim is unconscious, seek medical attention immediately.
<b>Skin contact</b>	Remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Flush immediately with copious amounts of water and maintain continuous irrigation until the victim receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover any wound with sterile dressing.
<b>Eye contact</b>	Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical attention. If medical care is not promptly available, continue to irrigate for one hour.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side
<b>Inhalation</b>	Move victim to fresh air.

### 5. Fire-Fighting Measures

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<b>Suitable extinguishing media</b>	Alcohol-resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical Water Fog
<b>Specific hazards arising from the chemical</b>	Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
<b>Special protective equipment and precautions for fire-fighters</b>	
<b>Fire-fighting equipment/instructions</b>	Avoid contact with skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
<b>Further information</b>	Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### 6. Accidental Release Measures

---

<b>Personal precautions</b>	Wear proper protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing.
<b>Emergency procedures</b>	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Construct a dike to prevent spreading.
<b>Methods and materials for containment/cleanup</b>	Stop spill at source, dike area to prevent spreading, place in proper waste container. Contact Chemtrec for further instruction. Approach suspected leak areas with caution.



**Environmental precautions**

Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways.

## 7. Handling And Storage

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**Precautions for safe handling**

Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.

**Precautions/Recommendations for safe/proper storage**

Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.  
Keep from freezing.

## 8. Exposure Controls/Personal Protection

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**Engineering controls**

Provide readily accessible eye wash stations and safety showers.  
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

**Individual protection measures/Personal protective equipment****Eye/face protection**

Splash-proof goggles or safety spectacles with side shields are recommended. Always wear eye protection when sanding cured epoxy resins to avoid dust in eyes.

**Hand protection**

Always wear impervious gloves: butyl rubber, nitrile rubber, Neoprene, PVC disposable gloves,

**Skin protection**

Wear clean, body-covering clothing to avoid skin contact.

**Environmental exposure controls**

Use appropriate containment to avoid environmental contamination. Do not allow spill to enter sewers or waterways.

**Special instructions for protection and hygiene**

Discard contaminated leather articles. Remove contaminated clothing. Wash at the end of each work shift and before eating smoking or using the toilet.  
Provide readily accessible eye wash stations and safety showers.

## 9. Physical And Chemical Properties

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**Chemical family**

Amine Curing Agent

**Physical State****Form**

Pourable Liquid

**Color**

Amber

**Odor**

Ammoniacal

**Relative density**

0.9 – 1.0

**Viscosity**

110-120 cps at 77 °F (25 °C)

**pH**

Alkaline

**Initial boiling point and boiling range**

N/A

**Flash point**

N/A

**Vapor pressure**

N/A

## 10. Stability And Reactivity

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<b>Chemical Stability</b>	Stable under normal conditions.
<b>Incompatible materials</b>	Organic acids (i.e. acetic acid, citric acid, etc.). Mineral acids. Sodium hypochlorite. Oxidizing agents.
<b>Hazardous decomposition products</b>	Nitric acid Ammonia Aldehydes Nitrogen oxides (NO <sub>x</sub> ) Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide. Carbon dioxide (CO <sub>2</sub> ).

## 11. Toxicological Information

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### Acute Health Hazard (components)

\*No comprehensive data (ingestion, inhalation, dermal) on mixture (product).

#### Component 1

<b>Acute Oral Toxicity</b>	LD50: 1.080 mg/kg	Rabbit
<b>Inhalation</b>	LC50 (4 h): > 0.07 - < 0.3 mg/l	Rat
<b>Acute Dermal Toxicity</b>	LD50: 1090 mg/kg	Rabbit

#### Component 2

<b>Acute Oral Toxicity</b>	LD50: 2097 mg/kg	Rabbit
<b>Acute Dermal Toxicity</b>	LD50: 866 mg/kg	Rabbit
<b>Chronic Dermal Toxicity</b>	Sensitizing	Guinea Pig

#### Component 3

<b>Acute Oral Toxicity</b>	LD50: 2885 mg/kg	Rat
<b>Inhalation (Vapor)</b>	LC50: > 0.74 mg/l	Rat
<b>Acute Dermal Toxicity</b>	LD50: 2979 mg/kg	Rabbit

There is no comprehensive data showing potential carcinogenicity by OSHA, NTP, or IARC.

## 12. Ecological Information

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### Ecotoxicity

<b>Aquatic toxicity</b>	No data on the product itself		
<b>Component 1</b>	No data on the component itself.		
<b>Component 2</b>	Acute EC50	Daphnia	58 mg/ml
	Acute LC50	Fish	2190 mg/ml
<b>Component 3</b>	Acute EC50	Daphnia	80mg/l
	Acute LC50	Fish	772mg/l

### Persistence and degradability

<b>Component 1</b>	No data on the component itself.
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<b>Component 2</b>	OECD data shows not readily biodegradable.
<b>Component 3</b>	OECD data shows not readily biodegradable.
<b>Bioaccumulative Potential</b>	No data on product itself.
<b>Component 1</b>	No data on component itself.
<b>Component 2</b>	logPow -1.48    BCF not known
<b>Component 3</b>	logPow 1.34    BCF not known
<b>Mobility in Soil</b>	No data on the product itself

### 13. Disposal Considerations

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<b>Waste from residues/ unused products</b>	Product should not be allowed to enter drains, water courses or the soil; dispose of this material and its containers in a safe way. Contact supplier if guidance is required.
<b>Contaminated packaging</b>	Dispose of container and unused contents in accordance with federal, state and local requirements.

### 14. Transport Information

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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	Reportable Quantity (RQ)
DOT		Non-regulated		
TDG		Non-regulated		
IMO/IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S (NONYL PHENOL)	Class 9 III	
IATA (Cargo)	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (NONYL PHENOL)	Class 9 III	

<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

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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 12(b) – Proposed significant new use rules:** None Required.  
**United States – TSCA 5(e) – Substance consent order:** Not listed.

**California Prop. 65**

This product contains no chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

**United States inventory (TSCA 8b)**

All components are listed or exempted

**CANADA**

**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.

**Japan inventory:** All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

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

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**HMIS Rating**

<b>Health</b>	<b>2</b>
<b>Flammability</b>	<b>1</b>
<b>Physical Hazard</b>	<b>0</b>

**Date of Preparation**

February 17, 2016

**More Information**

1-253-333-8118

**Prepared By**

J. Bartlett, System Three Resins Inc.