

## 1. Product Identification

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<b>Product name</b>	Cold Cure Hardener, Part B
<b>SDS Number</b>	F1000B
<b>Product type</b>	Amine Curing Agent
<b>Recommended use of the chemical and restrictions on use</b>	Directed at, but not limited to, the molding and coating of wood, composite materials, and other inorganic substrates.
<b>Restrictions</b>	None known.
<b>Manufacturer/Supplier information</b>	
<b>Company name</b>	SYSTEM THREE RESINS, INC.
<b>Address</b>	3500 W. Valley Hwy, Suite Suite 105 Auburn, WA 98001-2436 United States
<b>Telephone</b>	1-253-333-8118
<b>Website</b>	www.systemthree.com
<b>Email</b>	support-@systemthree.com
<b>Emergency Contact</b>	CHEMTREC (U.S. and CANADA)   1-800-424-9300 CHEMTREC (Outside the U.S.)   1-703-527-0585

## 2. Hazard(s) Identification

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<b>Classification of substance or mixture/Signal Word</b>	DANGER. Acute toxicity (Oral) – Category 4 Acute toxicity (Inhalation) – Category 4 Skin Corrosion/Irritation – Category 2 Serious Eye Damage – Category 1 Germ Cell Mutagenicity – Category 2 Specific target organ toxicity (repeated exposure) – Category 2
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**GHS Label Elements**  
**Hazard Pictograms**



<b>Hazard Statements/Classification of substance or mixture</b>	H302 Harmful if swallowed. H315 Causes skin irritation. H318 Causes serious eye damage. H332 Harmful if inhaled. H341 Suspected of causing genetic defects. H373 May cause damage to organs through repeated or prolonged exposure.
<b>Precautionary statements</b>	
<b><u>Precautionary Statements</u></b>	P201 Obtain special instructions before use.
<b>Prevention</b>	P202 Do not handle until all safety precautions have been read and understood.

<b>Response</b>	<p>P264 Wash hands thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves. Wear eye or face protection.</p> <p>P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.</p> <p>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308 + P313 IF exposed or concerned: Get medical advice/attention.</p> <p>P310 Immediately call a POISON CENTER or doctor/physician.</p> <p>P330 Rinse mouth.</p> <p>P332 + P313 If skin irritation occurs: Get medical advice/attention.</p>
<b>Storage</b>	<p>P362 Take off contaminated clothing and wash before reuse.</p>
<b>Disposal</b>	<p>P405 Store locked up.</p> <p>P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.</p>
<b>Hazards not otherwise classified (HNOC)</b>	None known.

### 3. Composition/Information On Ingredients

Chemical Name	CAS Number	Content (%)
Benzyl Alcohol	100-51-6	>35%
Isophoronediamine (IPDA)	2855-13-2	<35%
Cycloaliphatic Amine	Trade Secret	<20%
Phenol	108-95-2	<10%

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>	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>	Rinse immediately with plenty of water for at least 15 minutes.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If a person vomits when lying on his/her back, place in the recovery position. Prevent aspiration of vomit. Turn victim's head to the side
<b>Inhalation</b>	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. Move to fresh air.

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

<b>Notes to physician</b>	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat. Neurological disorders. Liver disorders. Kidney disorders. Asthma. Skin disorders and allergies. Eye disease.
<b>Specific treatments</b>	Application of corticosteroid cream has been effective in treating skin irritation.

## 5. Fire-Fighting Measures

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<b>Suitable extinguishing media</b>	Alcohol-resistant foam, Carbon dioxide, dry chemical, dry sand, limestone powder.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	May generate ammonia and nitrogen oxide gases. Use of water may form very toxic solutions. Incomplete combustion may form carbon monoxide.
<b>Hazardous decomposition products</b>	Oxides of carbon and nitrogen.
<b>Special protective actions for fire-fighters</b>	Avoid contact with skin.
<b>Special protective equipment for fire-fighters</b>	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. Do not store in reactive metal containers.

## 8. Exposure Controls/Personal Protection

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<b>Occupational Exposure Limits</b>	Not established.
<b>Appropriate 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>Environmental exposure controls</b>	Construct a dike to prevent spreading.
<b>Individual protection measures/Personal protective equipment</b>	Discard contaminated leather articles. Provide readily accessible eye wash stations and safety showers. Wash hands at the end of each work shift and before eating, smoking or using the toilet.
<b>Eye/face protection</b>	Chemical resistant goggles must be worn.

<b>Hand protection</b>	Neoprene gloves, PVC disposable gloves, butyl-rubber, nitrile rubber, impervious gloves, chemical-resistant impervious gloves complying with an approved standard.
<b>Skin protection</b>	Long sleeve shirts and trousers without cuffs.
<b>Respiratory protection</b>	Wear appropriate respirator when ventilation is inadequate.
<b>Special instructions for protection and hygiene</b>	Discard leather articles. Provide readily accessible eye wash stations and safety showers. Wash hands at the end of each work shift and before eating, smoking or using the toilet.

## 9. Physical and Chemical Properties

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<b>Chemical family</b>	Amine curing agent
<b>Appearance</b>	Light yellow liquid
<b>Physical State</b>	Amine mixture
<b>Form</b>	Liquid
<b>Color</b>	Light yellow
<b>Odor</b>	Ammoniacal/Phenolic
<b>Density (Specific Gravity)</b>	1.02 g/cm <sup>3</sup>
<b>Viscosity</b>	110 - 120 CPS @77°F (25°C)
<b>pH</b>	Alkaline
<b>Melting point/freezing point</b>	N/A
<b>Initial boiling point and boiling range</b>	399°F (204°C)
<b>Flash point</b>	230°F (110°C)
<b>Evaporation rate</b>	N/A
<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>	N/A
<b>Relative density</b>	1.02 (water = 1)
<b>Solubility in water</b>	<0.1 g/l
<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.
<b>Chemical Stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No data available.

<b>Conditions to avoid</b>	No data available.
<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, nitrogen oxides (NOx). Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide, carbon dioxide, aldehydes. Flammable hydrocarbon fragments.
<b>Other hazards</b>	None known.

## 11. Toxicological Information

**Acute Health Hazard (components)** No data is available on the product itself.

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

**Irritation/Corrosion (components)** Severe skin irritation. Corrosive to the skin of a rabbit. Severe eye irritation.

Component	Result	Species	Test	Exposure
Benzyl Alcohol	Non-irritant	Rabbit	OECD 404 – Skin	-
	Irritant	Rabbit	OECD 405 – Eye	-

**Sensitization** Did not cause sensitization on laboratory animals.

**Mutagenicity** No data is available on the product itself.

**Carcinogenicity** No data is available on the product itself.

**Reproductive Toxicity** No data is available on the product itself.

**Teratogenicity** No data is available on the product itself.

**Specific target organ toxicity (single exposure)** No data is available on the product itself.

**Specific target organ toxicity (repeated exposure)** No data is available on the product itself.

**Aspiration hazard** No data is available on the product itself.

### **Potential acute health effects**

**Eye Contact** Causes serious eye damage.

**Inhalation** Harmful if inhaled.

**Skin Contact** Causes skin irritation.

**Ingestion** Harmful if swallowed.

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

**Eye Contact** Corneal edema may give rise to a perception of “blue haze” or “fog” around lights. Exposed individuals may see rings around bright lights. This effect is temporary and has no known residual effect. Product vapor can cause glaucopsia (corneal edema) when absorbed into the tissue of the eye from the atmosphere.

**Inhalation** Toxic by inhalation. Harmful if inhaled and may cause delayed lung injury. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure. May cause nose, throat, and lung irritation. Inhalation of

vapors and/or aerosols in high concentration may cause irritation of respiratory system.

**Skin Contact**

If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties.

**Ingestion**

Harmful if swallowed. May cause central nervous system effects, such as headache, nausea, vomiting, abdominal pain, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.

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

Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas; neurological disorders, liver disorders, kidney disorders, asthma, skin disorders, allergies, and eye disease.

Rats exposed to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus, and skeletal muscles.

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

**Potential chronic health effects**

**General**

No data is available on the product itself.

**Carcinogenicity**

No data is available on the product itself.

**Mutagenicity**

No data is available on the product itself.

**Teratogenicity**

No data is available.

**Developmental effects**

No data is available.

**Fertility effects**

No data is available.

**Numerical measures of toxicity**

**Acute toxicity estimates (ATEmix)**

No data is available.

## 12. Ecological Information

**Ecotoxicity**

No data is available on the product itself.

Component	Test	Endpoint	Exposure	Species	Result
Benzyl Alcohol	-	Acute LC50	96 h	Bluegill sunfish	10 mg/l
	-	Acute LC50	96 h	Fathead minnow	460 mg/l
	-	Acute IC50	72 h	Algae	700 mg/l
Phenol	-	Acute EC50	48 h	Daphnia	4 - 7 mg/l

**Persistence and degradability**

No data is available on the product itself.

Component	Test	Period	Result
Benzyl Alcohol			Readily Biodegradable

**Bioaccumulative Potential**

No data is available on the product itself.

Component	LogPow	BCF	Potential
Benzyl Alcohol	1.05	1.37 (calculated)	Low
Phenol	1.47	-	Low

**Mobility in Soil**

No data is available.

**Soil/water partition coefficient (KOC)** No data is available.  
**Other adverse effects** No data is available.

### 13. Disposal Considerations

**Waste from residues/ unused products** 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.

**Contaminated packaging** Dispose of container and unused contents in accordance with federal, state, and local requirements.

### 14. Transport Information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

#### International Transport Regulations

Regulatory information	UN/NA number	Proper Shipping Name	Classes/*PG	Additional Information
DOT	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (Isophoronediamine)	Class 8 III	
TDG	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (Isophoronediamine)	Class 8 III	
IMO/IMDG	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (Isophoronediamine)	Class 8 III	
IATA (Cargo)	UN2735	AMINES, LIQUID, CORROSIVE, N.O.S. (Isophoronediamine)	Class 8 III	

\*PG: Packing group

**Special precautions for user:** Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### 15. Regulatory Information

#### UNITED STATES

**U.S. Federal Regulations**  
**United States – TSCA 12(b) – Chemical export notification:** None Required.  
**United States – TSCA 5(a)2 – Final significant new use rules:** Not Listed.  
**United States – TSCA 5(a)2 – Proposed significant new use rules:** Not Listed.  
**United States – TSCA 5(e) – Substance consent order:** Not listed.

**Clean Air Act – Ozone Depleting Substances (ODS)** This product does not contain nor is it manufactured with ozone depleting substances.

**Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)**

Product Name	Concentration %
Phenol	0 - 1

**Pennsylvania – RTK** Phenol

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

EPA SARA 302 Extremely Hazardous Substances None known.  
 EPA SARA 302/304/311/312 Hazardous Chemicals Acute Health Hazard  
 SARA 313  
 Form R – Reporting requirements

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

CERCLA Hazardous substances

United States inventory (TSCA 8b)

All components are listed or exempted.

**CANADA**

WHMIS (Canada) Class E: Corrosive Material  
 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.  
**EU (EINECS):** All components are listed or exempted.  
**Philippines inventory (PICCS):** All components are listed or exempted.

**16. Other Information, Including Date of Preparation or Last Revision**

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HMIS Rating

Health 3
Flammability 1
Physical Hazard 0

Date of Preparation February 21, 2017  
 Date of Last Revision July 22, 2015  
 Revision # 2.0  
 More Information 1-253-333-8118  
 Prepared by N. Kim, 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.