Safety Data Sheets (SDS)
Updated: July 13, 2023

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

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).

SAFETY DATA SHEET

1. Product Identification

Product name	Cold Cure Resin
SDS Number	F1000A
Product type	Epoxy polymer mixture.
Recommended use of the chemical and restrictions on use	Directed at but not limited to, the molding and coating of wood, composite materials, and other inorganic substrates.
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

Classification of substance or mixture/Signal Word

WARNING.
Skin Corrosion/Irritation - Category 2
Serious Eye Damage/Eye Irritation - Category 2A
Skin Sensitizer – Category 1
Reproductive Toxicity – Category 2
Specific Target Organ Toxicity (Single Exposure) [Respiratory tract irritation] – Category 3
Acute Aquatic Toxicity – Category 2
Chronic Aquatic Toxicity – Category 2

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.
H355	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects

Precautionary statements

Precautionary Statements

P280	Wear protective gloves. Wear eye or face protection.

Prevention	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing vapors.
Response	P308 + P313 If exposed or concerned: Get medical attention.
Storage	P401 Store above 32 °F / 0 °C
Disposal	P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified (HNOC)	None Available.

3. Composition/Information On Ingredients

Chemical Name	CAS Number	Content (%)
Diglycidyl Ether of Bisphenol A	25068-38-6	80 – 90 %
Benzyl Alcohol	100-51-6	6-10 %
Para-tert-Butylphenol	98-54-4	6-10%
Diglycidyl Ether of Bisphenol F	28064-14-4	6-10%

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

Skin contact	Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned. Contaminated leather articles (shoes) cannot be decontaminated and should be destroyed.
Eye contact	Flush with water for 15 minutes holding eye lids open. Seek medical attention.
Ingestion	Do not give liquids if victim is unconscious of very drowsy. Otherwise, give no more than 2 glasses of water and induce vomiting by giving 2 tablespoons syrup of ipecac (1 tablespoon and 1 glass of water for child). If ipecac is unavailable, give 2 glasses of water and induce vomiting by touching finger to back of throat. Keep head below hips while vomiting. Get medical attention.
Inhalation	Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

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

Notes to physician	Burns. Irritation. Pre-existing skin conditions may be aggravated by prolonged or repeated contact. Persons with sensitive airways (e.g., asthmatics) may be sensitive to vapors.
Specific treatments	Treat symptoms as they appear.

5. Fire-Fighting Measures

Suitable extinguishing media	Foam, carbon dioxide, dry chemical, water fog.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Potential skin irritation.
Hazardous decomposition products	None known.

Special protective actions for fire-fighters	When fighting chemical fires, wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire-exposed containers. Toxic fumes may be evolved when this substance is burned.
Special protective equipment for fire-fighters	Full fire suit and self-contained breathing apparatus.
Further information	Water spray may be used to cool fire-exposed containers. Toxic fumes may be evolved when this substance is burned. Epoxy in mass can create exotherm.

6. Accidental Release Measures

Personal precautions	Wear proper personal protective equipment (PPE). Avoid direct contact with material. Proper PPE includes: disposable gloves, eye protection and skin protection.
Emergency procedures	If material is spilled, avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete.
Methods and materials for containment/cleanup	Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust or other absorbent, and shoveled into disposal container.
Environmental precautions	Skin sensitizer, harmful to aquatic life.

7. Handling and Storage

Precautions for safe handling	Always wear protective, disposable gloves when handling epoxy products to prevent exposure.
Precautions/Recommendations for safe/proper storage	Store epoxy products in temperature stable environment, out of the reach of pets or children. Securely fasten container lids and tops, and prevent products from sitting and below freezing temperatures.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits	None established.
Appropriate engineering controls	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Environmental exposure controls	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter sewers or waterways.
Individual protection measures/Personal protective equipment	
Eye/face protection	Splash proof goggles or safety glasses with side shields are recommended. Always wear eye protection when sanding cured epoxy to avoid dust in eyes.
Hand protection	Always wear impervious gloves, neoprene, vinyl or rubber.
Skin protection	Wear clean, body-covering clothing to avoid skin contact.
Respiratory protection	Use a NIOSH-approved respiratory device when sanding cured epoxy to prevent dust in lungs.

Special instructions for protection and hygiene	Wear gloves at all times when handling product, avoid direct contact with skin. When finished using product, dispose of gloves properly and wash hands with warm, soapy water.

9. Physical and Chemical Properties

Chemical family	Epoxy Resin
Appearance	Clear viscous liquid
Physical State	Epoxy polymer mixture
Form	Liquid
Color	Water clear
Odor	Phenolic odor
Density (Specific Gravity)	9.5 lb/gal (1.14)
Viscosity	2000-2200 cps @ 25°C
pH	N/A
Melting point/freezing point	Data not available
Initial boiling point and boiling range	Data not available
Flash point	>300°F, Pensky-Martens Closed Cup
Evaporation rate	Slower than ether
Flammability (solid, gas)	Data not available
Upper/lower flammability limit (by volume)	
Upper flammability limit (by volume)	N/A
Lower flammability limit (by volume)	N/A
Material VOC	None
Vapor density	Heavier than air
Relative density	Not determined
Solubility in water	Negligible, in water
Partition coefficient: n-octanol/water	Data not available
Auto-ignition temperature	300°C (572.00°F)
Decomposition temperature	Not available

10.Stability and Reactivity

Reactivity	None
Chemical Stability	Stable
Possibility of hazardous reactions	Hazardous polymerization will not occur.
Conditions to avoid	Epoxy resins and epoxy resin hardeners can react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in large mass as the ensuing exotherm may result in heat and smoke, resulting in hazardous decomposition products.
Incompatible materials	Strong oxidizing agents, Lewis and mineral acids.
Hazardous decomposition products	Oxides of carbon, aldehydes, acids.

Other hazards None known.

11. Toxicological Information

Acute Health Hazard (components) No comprehensive data (ingestion, inhalation, dermal) on mixture (product).

Component	Result	Species	Dose	Exposure
Diglycidyl Ether of Bisphenol A	LD50 Oral	Rat	11,400 mg/kg	-
	LD50 Dermal	Rat	2,000 mg/kg	-
Benzyl Alcohol	LD50 Oral	Rat	1620 mg/kg	-
	LC50 Inhalation	Rat	>4178 mg/m3	4 hrs, aerosol
Para-tert-Butylphenol	LD50 Oral	Rat	>2000 mg/kg	-
	LC50 Inhalation	Rat	5.6 mg/l	-

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

Component	Result	Species	Test	Exposure
Diglycidyl Ether of Bisphenol A	Skin – Erythema/Eschar 404 Acute Dermal Irritation/Corrosion	Rabbit	1.5 – 2	-
	Skin – Edema 404 Acute Dermal Irritation/Corrosion	Rabbit	1.0 – 1.5	-
	Eyes – 405 Acute Eye Irritation/Corrosion	Rabbit	0	-
	Eyes – Redness of the conjunctivae	Rabbit	0.7	-
	Skin – Moderate irritant	Rabbit		24 hrs
	Eyes – Mild irritant	Rabbit		-
Benzyl Alcohol	Eyes – 405 OECD Irritant	Rabbit		-
Para-tert-Butylphenol	Skin – Moderate irritant	Rabbit		4 hrs
	Eyes – Severe eye irritant	Rabbit		24 hrs

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
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 skin irritation. May cause an allergic skin reaction.

Ingestion Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye Contact Adverse symptoms may include the following:
Pain
Watering
Redness

Inhalation Adverse symptoms may include the following:
Respiratory tract irritation
Coughing

Skin Contact Adverse symptoms may include the following:
Irritation
Redness

Ingestion No specific data.

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

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)

Route	ATE value
Oral	8074.3 mg/kg
Dermal	2020.2 mg/kg
Inhalation (vapors)	4178 mg/l

12. Ecological Information

Ecotoxicity

Component	Result	Species	Exposure
Diglycidyl Ether of Bisphenol A	Acute LC50 1.3 mg/l – 203 Fish, Acute Toxicity Test	Fish – Fish	96 h
	Acute EC50 2.1 mg/l – 202 Daphnia sp. Acute Immobilization Test and Reproduction Test	Aquatic invertebrates. Water flea	48 h
	Acute NOEC 0.3 mg/l – 211 Daphnia Magna Reproduction Test	Aquatic invertebrates. Water flea	21 d
	Acute LC50 > 11 mg/l	Aquatic plants – Algae	72 h
Benzyl Alcohol	Acute LC50 460 mg/l	Fish	96 h

	Acute EC50 230 mg/l	Invertebrates	48 h
	Chronic NOEC 310 mg/l	Algae	72 h
Para-tert-Butylphenol	Acute LC50 – 5.14 mg/l	Fish	96 h
	Acute EC50 – 4.8 mg/l	Daphnia	48 h

Persistence and degradability No information on product itself.

Bioaccumulative Potential No information on product itself.

Component	LogPow	BCF	Potential
Diglycidyl Ether of Bisphenol A	2.64 – 3.78	3 – 31 31.00	Low
Diglycidyl Ether of Bisphenol F	3	-	low
Benzyl Alcohol	1.05	1.37 (calculated)	-

Mobility in Soil

Soil/water partition coefficient (KOC) No information on product itself.

Other adverse effects No known significant effects or critical hazards.

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		Not regulated		
TDG		Not regulated		
IMO/IMDG	UN3082	Environmentally Hazardous Substance, liquid, n.o.s. (Bisphenol-A Epichlorohydrin Resin)	Class 9 III	Marine pollutant
IATA	UN3082	Environmentally Hazardous Substance, liquid, n.o.s. (Bisphenol-A Epichlorohydrin Resin)	Class 9 III	Marine pollutant

*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.
California Prop. 65	WARNING: This product can expose you to chemicals including Oxirane, 2-(chloromethyl)- that is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.
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

HMIS Rating

Health 2
Flammability 1
Physical Hazard 0

Date of Preparation	March 1, 2023
Date of Last Revision	May 27, 2021
Revision #	7.0
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.

SAFETY DATA SHEET

1. Product Identification

Product name	Cold Cure Hardener, Part B
SDS Number	F1000B
Product type	Amine Curing Agent
Recommended use of the chemical and restrictions on use	Directed at, but not limited to, the molding and coating of wood, composite materials, and other inorganic substrates.
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

Classification of substance or mixture/Signal Word

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

GHS Label Elements
Hazard Pictograms

Hazard Statements/Classification of substance or mixture

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.

Precautionary statements

Precautionary Statements
Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands thoroughly after handling.

	P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves. Wear eye or face protection.
Response	P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor 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 east to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P310 Immediately call a POISON CENTER or doctor/physician. P330 Rinse mouth. P332 + P313 If skin irritation occurs: Get medical advice/attention. P362 Take off contaminated clothing and wash before reuse.
Storage	P405 Store locked up.
Disposal	P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified (HNOC)	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

Skin contact	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.
Eye contact	Rinse immediately with plenty of water for at least 15 minutes.
Ingestion	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
Inhalation	If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the hear has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.

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

Notes to physician	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.
Specific treatments	Application of corticosteroid cream has been effective in treating skin irritation.

5. Fire-Fighting Measures

Suitable extinguishing media	Alcohol-resistant foam, Carbon dioxide, dry chemical, dry sand, limestone powder.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	May generate ammonia and nitrogen oxide gases. Use of water may form very toxic solutions. Incomplete combustion may form carbon monoxide.
Hazardous decomposition products	Oxides of carbon and nitrogen.
Special protective actions for fire-fighters	Avoid contact with skin.
Special protective equipment for fire-fighters	A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
Further information	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

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

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. Do not store in reactive metal containers.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Not established.
Appropriate 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.
Environmental exposure controls	Construct a dike to prevent spreading.
Individual protection measures/Personal protective equipment	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.
Eye/face protection	Chemical resistant goggles must be worn.

Hand protection	Neoprene gloves, PVC disposable gloves, butyl-rubber, nitrile rubber, impervious gloves, chemical-resistant impervious gloves complying with an approved standard.
Skin protection	Long sleeve shirts and trousers without cuffs.
Respiratory protection	Wear appropriate respirator when ventilation is inadequate.
Special instructions for protection and hygiene	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

Chemical family	Amine curing agent
Appearance	Light yellow liquid
Physical State	Amine mixture
Form	Liquid
Color	Light yellow
Odor	Ammoniacal/Phenolic
Density (Specific Gravity)	1.02 g/cm^3
Viscosity	110 - 120 CPS @77°F (25°C)
pH	Alkaline
Melting point/freezing point	N/A
Initial boiling point and boiling range	399°F (204°C)
Flash point	230°F (110°C)
Evaporation rate	N/A
Flammability (solid, gas)	N/A
Upper/lower flammability limit (by volume)	N/A
Upper flammability limit (by volume)	N/A
Lower flammability limit (by volume)	N/A
Material VOC	None
Vapor density	N/A
Relative density	1.02 (water = 1)
Solubility in water	<0.1 g/l
Partition coefficient: n-octanol/water	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A

10.Stability and Reactivity

Reactivity	Stable.
Chemical Stability	Stable under normal conditions.
Possibility of hazardous reactions	No data available.

Conditions to avoid	No data available.
Incompatible materials	Organic acids (i.e. acetic acid, citric acid, etc.), mineral acids, sodium hypochlorite, oxidizing agents
Hazardous decomposition products	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.
Other hazards	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/m3	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	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)	See table below
Pennsylvania – RTK	Phenol
California Prop. 65	None required.
EPA SARA 302 Extremely Hazardous Substances	None known.

Product Name	Concentration %
Phenol	0 - 1

EPA SARA 302/304/311/312 Hazardous Chemicals Acute Health Hazard

SARA 313
Form R – Reporting requirements

Product Name	Concentration %
Phenol	0 - 1

CERCLA Hazardous substances

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

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

HMIS Rating

Health 3
Flammability 1
Physical Hazard 0

Date of Preparation March 1, 2023

Date of Last Revision January 8, 2020

Revision # 5.0

More Information 1-253-333-8118

Prepared by System Three Resins Inc.

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