

# SAFETY DATA SHEET

### 1. Product Identification

**Product name** General Purpose Epoxy Resin

SDS Number 0100A00

**Product type** Epoxy polymer mixture.

Recommended use of the chemical and

restrictions on use

Directed at, but not limited to, the coating, bonding, and reinforcing of wood

and fiber composites.

**Restrictions** None known.

Manufacturer/Supplier information

Company name SYSTEM THREE RESINS, INC.

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Lacey, WA 98516 United States

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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 DANGER.

mixture/Signal Word Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2

Skin Sensitizer – Category 1

Specific Target Organ Toxicity (Single Exposure) [Respiratory tract irritation] -

Category 3

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.

H335 May cause respiratory irritation.

**Precautionary statements** 

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P201 Obtain special instructions before use.

**Prevention** P261 Avoid breathing vapors.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the

workplace.

P280 Wear protective gloves. Wear eye or face protection.

**Response** P304 + 340 IF INHALED: Remove victim to fresh air and keep at rest in a

position comfortable for breathing.

P302+352 IF ON SKIN: Wash with soap and water.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses if present and easy to do. Continue rinsing.

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

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

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

1302 · 1304 Take on contaminated clothin

Storage P401 Store above 32 °F / 0 °C

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

closed.

**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	60 – 70 %
Alkyl Glycidyl Ether	68609-97-2	15 – 20%
Alkyl Glycidyl Ether	74398-71-3	1 – 10%
Diglycidyl Ether of Bisphenol F	28064-14-4	1 – 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 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 10 minutes. Seek medical attention.

**Ingestion** Wash out mouth with water. 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. Following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in a recovery position and get medical attention immediately. Maintain an open

airway. Loosen tight clothing such as a color, tie, belt or waistband.

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 Treat symptomatically. Contact poison treatment specialist immediately if

large quantities have been ingested or inhaled.

**Specific treatments** No specific treatment.

### 5. Fire-Fighting Measures

Suitable extinguishing media Unsuitable extinguishing media

Specific hazards arising from the chemical

Alcohol-resistant foam, dry chemical, water fog or carbon dioxide (CO2).

None known.

In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated must be contained and prevented from being discharged to any

waterway, sewer or drain.

**Hazardous decomposition products** Decomposition products may include the following materials:

Carbon dioxide

Carbon monoxide

**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.

Special protective equipment for fire-

fighters

Fire-fighters should wear appropriate protective equipment and selfcontained breathing apparatus (SCBA) with a full face-piece operated in

positive pressure mode.

**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 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Wear proper protective clothing,

gloves and eye/face protection.

**Emergency procedures** If specialized clothing is required to deal with the spillage, take note of any

information in Section 8 on suitable and unsuitable materials.

Methods and materials for

containment/cleanup

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the

same hazard as the spilled product.

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

Precautions for safe handling

Put on appropriate personal protective equipment. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid contact with skin and eyes. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. When using, do not eat, drink or smoke. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before

entering eating areas. See also Section 8 for additional information on

hygiene measures.

Precautions/Recommendations for safe/proper storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Store locked up. 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

Occupational Exposure Limits None established.

gas, vapor or mist, 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**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 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.

**Respiratory protection**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.

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

**Chemical family** Epoxy Resin

**Appearance** Pourable liquid

Physical State Epoxy polymer mixture

Form Liquid

**Color** Water clear

**Odor** Little or no odor

**Density (Specific Gravity)** 9.5-9.7 lb/gal (1.1-1.2)

**Viscosity** 600-750 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

Relative density

Not determined

Negligible, in water

Partition coefficient: n-octanol/water

Auto-ignition temperature

Data not available

300°C (572.00°F)

Not available

### 10. Stability and Reactivity

Reactivity Stable.

**Chemical Stability** Stable under normal conditions.

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 large mass as the ensuing exotherm may result in heat and smoke, resulting in

hazardous decomposition products.

**Incompatible materials** Reactive or incompatible with the following materials:

Strong oxidizing agents

Lewis acids
Mineral acids

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition

products should not be produced.

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	-
Diglycidyl Ether of Bisphenol F	LD50 Oral	Rat	>2,000 mg/kg	-
	LD50 Dermal	Rat	>2,000 mg/kg	-
Alkyl Glycidyl Ether	LD50 Oral	Rat	17,100 mg/kg	-

Alkyl Glycidyl Ether	LD50 Oral	Rat	>5,000 mg/kg	-
	LD50 Dermal	Rabbit	>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	-
Alkyl Glycidyl Ether	Moderate irritant	Rabbit	Skin	24 h

SensitizationNo information on product itself.MutagenicityNo information on product itself.CarcinogenicityNo information on product itself.Reproductive ToxicityNo information on product itself.TeratogenicityNo information on product itself.Specific target organ toxicity (single)No information on product itself.

exposure)

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
Alkyl Glycidyl Ether	Category 3		Respiratory tract irritation

Specific target organ toxicity (repeated

exposure)

No information on product itself.

<u>Aspiration hazard</u> No information on product itself.

Potential acute health effects

Eye ContactCauses serious eye irritation.InhalationMay 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.

### <u>Delayed and immediate effects and also</u> <u>chronic effects from short and long term</u> <u>exposure</u>

#### Potential chronic health effects

**General** Once sensitized, a severe allergic reaction may occur when subsequently

exposed to very low levels.

CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates (ATEmix) Not available.

## 12. Ecological Information

#### **Ecotoxicity**

No information on product itself.

Component	Test	Species	Result	Exposure
Diglycidyl Ether of Bisphenol A	Acute LC50	Fish	1.3 mg/l	96 h
	Acute LC50	Daphnia	2.1 mg/l	48 h
Diglycidyl Ether of Bisphenol F	Acute LC50	Fish	1.5 mg/l	96 h
	Acute LC50	Daphnia	1.7 mg/l	48 h
	Chronic NOEC	Daphnia	0.3 mg/l	21 d
Alkyl Glycidyl Ether	Acute LC50	Fish	1.8 g/l	96 h
	Acute EC50	Daphnia	7.2 mg/l	48 h
	Acute EC50	Algae	844 mg/l	72 h

<u>Persistence and degradability</u> No information on product itself.

<u>Bioaccumulative Potential</u> 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
Alkyl Glycidyl Ether	3.77	160 – 263 160.00	low

#### **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.

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to

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	
IATA	UN3082	Environmentally Hazardous Substance, Liquid, n.o.s. (Bisphenol-A Epichlorohydrin Resin)	Class 9 III	
*PG: Packing group				

15. Regulatory Information

Special precautions for user:

**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 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 reproductive harm.

do in the event of an accident or spillage.

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

**EPA SARA 302 Extremely Hazardous** 

None required.

**Substances** 

EPA SARA 302/304/311/312 Hazardous

Acute Health Hazard.

Chemicals

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

**CANADA** 

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

Canadian NPRINone required.CEPA Toxic substancesNone 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**



Date of Preparation January 7, 2020

**Date of Last Revision** September 19, 2019

Revision # 4.0

More Information 1-253-333-8118

**Prepared by** System Three Resins Inc.

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