

1. Product Identification

Product Name	Phase II Part A
SDS Number	0300A00
Product Type	Epoxy Resin Mixture
Recommended use of the chemical and restrictions on use	Epoxy Resin Component.
Restrictions	None known.
Manufacture/Supplier Information	
Company Name	SYSTEM THREE RESINS, INC.
Address	3500 W. Valley Hwy North Suite 105 Auburn, WA 98001-2436
Telephone	(253) 333-8118
Website	www.systemthree.com
Email	Support-08@systemthree.com
Emergency Contact	CHEMTREC (U.S. and CANADA) (800) 424-9300 CHEMTREC (Outside the U.S.) (703) 527-0585

2. Hazard(s) Identification

Classification	SKIN CORROSION/IRRITATION - Category 2, H315 SENSITIZATION, SKIN - Category 1, H317 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2, H319 SPECIFIC TARGET ORGAN TOXICITY, SINGLE EXPOSURE – Category 3, H335 CHRONIC AQUATIC TOXICITY – Category 3, H412
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Label Elements

Symbol



Signal Word

WARNING

Hazard Statements

H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H412: Harmful to aquatic life with long lasting effect.

Precautionary Statements

Prevention

P261: Avoid breathing fumes/vapors.
P264: Wash hands and exposed skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothes should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear eye protection/face protection. Wear protective gloves.

2. Hazard(s) Identification

Response	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 easy to do. Continue rinsing. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P333 + P313: If skin irritation or rash occurs: Get medical advice/attention. P337 + P313: If eye irritation persists: Get medical advice/attention. P362: Take off contaminated clothing and wash before reuse.
Storage	P403 + P233: Store in a well ventilated place. Keep container tightly closed. P405: Store locked up.
Disposal	P501: Disposal of contents/container to be specified in accordance with regulations.
General	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Hazards Not Otherwise Classified (HNOC)	None.
OSHA/HCS Status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

3. Composition/Information on Ingredients

Component	%	CAS Number
Phenol-Formaldehyde Polymer Glycidyl Ether	80-90*	28064-14-4
Phenol-Formaldehyde Polymer Glycidyl Ether Adduct	10-20*	Trade Secret

* Designates that a specific chemical identity and/or percentage of a composition has been withheld as a trade secret. Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 |1-13.

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 material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Safety shower should be located in immediate work area.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Suitable emergency eye wash facility should be available in work area. Get medical attention immediately if irritation persists.
Ingestion	Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4. First Aid Measures

Inhalation Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most Important Symptoms/Effects, Acute and Delayed

Skin Contact Causes severe skin irritation. May cause an allergic skin reaction.
Eye Contact Causes serious eye irritation.
Ingestion Irritating to mouth, throat and stomach.
Inhalation May cause respiratory irritation.

Over-exposure Signs/Symptoms

Skin Contact Adverse symptoms may include the following:
Irritation
Pain
Redness
Eye Contact Adverse symptoms may include:
Pain or irritation
Watering
Redness
Ingestion No specific data
Inhalation Adverse symptoms may include the following:
Respiratory tract irritation
Coughing

Indication of Immediate Medical Attention and Special Treatment Needed

Notes to Physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled or if extended exposure to eye and skin tissues have occurred.
Specific Treatments No specific treatment.
Protection of First Responders No action taken shall be taken involving any personal risk without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

5. Fire Fighting Measures

Lower Explosive Limit (LEL) N/A
Upper Explosive Limit (UEL) N/A
Specific Hazards Arising From the Chemicals In a fire or if heated, a pressure increase will occur and the container may burst.
Suitable Extinguishing Media Alcohol-resistant foam, dry chemical, dry sand, limestone powder or carbon dioxide (CO₂).
Unsuitable Extinguishing Media Use of water may result in the formation of environmentally hazardous products. Do not allow run-off from the fire fighting to enter drains or water courses.
Products of Combustion Decomposition products may include carbon monoxide, carbon dioxide, aldehydes, acids and halogenated compounds. Burning produces noxious and toxic fumes.

5. Fire Fighting Measures

Protection of Firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.

Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

For Non-Emergency Personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For Emergency Responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

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).

Methods For Containment

Small Spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert dry absorbent material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Wash the spill area clean with water and detergent, observing environmental requirements.

Large Spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with inert dry absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Wash the spill area clean with water and detergent, observing environmental requirements. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and Storage

Protective Measures

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

General Occupational Hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See Section 8 for additional information on hygiene measures.

7. Handling and Storage

Safe Storage Conditions

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits

List	Components	CAS-No.	Type	Value
ACGIH	None			
AIHA	None			
NIOSH	None			
OSHA Z1	None			

Engineering Controls

Use only with adequate ventilation. Keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide readily accessible eye wash stations and safety showers.

Environmental Exposure Controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual Protection Measures

Hygiene Measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Discard contaminated leather items. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: chemical splash goggles.

Skin Protection

Hand Protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Recommended gloves: Neoprene, PVC disposable, Butyl-rubber, Nitrile rubber.

Body Protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Long sleeve shirts and pants without cuffs are minimal recommended.

Other Skin Protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

8. Exposure Controls/Personal Protection

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.

9. Physical and Chemical Properties

Physical State	Liquid
Color	Clear
Odor	Little or no odor
pH	Not available
Melting Point	Not applicable
Boiling Point	Not applicable
Specific Gravity	1.1 – 1.3
Solubility in Water	Negligible
Evaporation Rate	Slower than ether
Vapor Pressure	Not available
Vapor Density (Air = 1)	Heavier than air
VOC Content	None
Viscosity	4,000 – 6,000 CPS

10. Stability and Reactivity

Reactivity	No specific test data related to reactivity is available for this product or its ingredients.
Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Epoxy resins and epoxy resin hardeners react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in a large mass as the ensuing exothermic reaction may produce heat, smoke and hazardous decomposition products. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.
Incompatible Materials	Strong oxidizing agents. Mineral and organic acids Sodium hypochlorite Reactive metals (e.g. sodium, calcium, zinc etc.).
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Toxic fumes may be evolved when product is burned. Decomposition products may include carbon oxides (CO, CO ₂), acids and aldehydes.
Possibility of Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological Information

Information on Toxicological Effects

Acute Toxicity

Component	CAS No	Result	Species	Dose	Exposure
Glyceryl poly(oxy propylene)triamine	64852-22-8	LD50 Oral	Rat	2,690 mg/kg	-
		LD50 Dermal	Rabbit	12,500 mg/kg	-
Phenol-Formaldehyde Polymer Glycidyl Ether	28064-14-4	LD50 Oral	Rat	>2,000 mg/kg	-
		LD50 Dermal	Rat	>2,000 mg/kg	-

11. Toxicological Information

Irritation/Corrosion

Component	CAS No	Test	Species	Result	Exposure
Phenol-Formaldehyde Polymer Glycidyl Ether	28064-14-4	Skin	Rabbit	Mild irritant	-
		Eye	Rabbit	Mild irritant	-

Sensitization

Component	CAS No	Test	Species	Result	Exposure
Phenol-Formaldehyde Polymer Glycidyl Ether	28064-14-4	Skin	Mouse	Sensitizing	-

Carcinogenicity	No data is available for this product.
Reproductive Toxicity	In vitro tests showed mutagenic effects (Phenol).
Teratogenicity	No data is available for this product.
Specific Target Organ Toxicity (single exposure)	No data is available for this product.
Specific Target Organ Toxicity (repeat exposure)	No data is available for this product.
Aspiration Hazard	No data is available for this product.
Information on likely routes of exposure	Inhalation, dermal, ingestion.
Additional Information	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

12. Ecological Information

Ecotoxicity

Component	CAS No	Test	Species	Dose	Exposure
Phenol-Formaldehyde Polymer Glycidyl Ether	28064-14-4	LC50	Fish	1.5 mg/l	96 h
		LC50	Daphnia	1.7 mg/l	48 h
		Chronic NOEC	Daphnia	0.3 mg/l	21 d
Phenol-Formaldehyde Glycidyl Ether Adduct	N/A				

Persistence and Degradability

Biodegradability No data is available on the product itself.

Component	Test	Period	Result
Phenol-Formaldehyde Polymer Glycidyl Ether	OECD 301F Derived	28 d	5%
Phenol-Formaldehyde Glycidyl Ether Adduct			

Bioaccumulative Potential

Component	LogP _{ow}	BCF	Potential
Phenol-Formaldehyde Polymer Glycidyl Ether	3.242	31	Low

Mobility in Soil

Soil/water Partition Coefficient (K_{oc}) Not available.

Other Adverse Effects No known significant effects or critical hazards.

13. Disposal Considerations

Other Adverse Effects

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport Information

	DOT Classification	IMDG	IATA
UN Number	Not regulated	3082	3082
UN Proper Shipping Name	-	Environmentally hazardous substance, liquid, n.o.s. (Epoxyphenol Novolac Resin)	Environmentally hazardous substance, liquid, n.o.s. (Epoxyphenol Novolac Resin)
Transport Hazard Classes	-	9	9
Packing Group	-	III	III
Environmental Hazards	-	YES	YES
Additional Information	-	EmS: F-A S-F *Note 1	*Note 1 *Note 2

*Note 1

The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

*Note2

Passenger and Cargo Aircraft – Qty Limitation: 450L; Packing Instructions: 964
Cargo Aircraft Only – Qty Limitation: 450L; Packing Instructions: 964

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

U.S. Federal Regulation

United States Inventory (TSCA 8b): All components are listed or exempted.

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302

No chemicals in this material are subject to reporting levels established by SARA Title III, Section 302.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard.

SARA 313

This material does not contain any chemical components of known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

New Jersey Right To Know Components

Component	CAS-No.	Revision Date
Phenol-Formaldehyde Polymer Glycidyl Ether	28064-14-4	-

15. Regulatory Information

Pennsylvania Right To Know
Components

Component	CAS-No.	Revision Date
Phenol-Formaldehyde Polymer Glycidyl Ether	28064-14-4	-

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 0.1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

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

16. Other Information

HMIS Rating

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

History

Date of Printing	12/22/15
Date of Issue/Date of Revision	12/22/15
Date of Previous Issue	None.
Prepared by	N. Kim

References None.

Disclaimer

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