

**Section 1. Product and Company Identification**

**Product Name:** TYFO® S-330 Part A  
**Supplier:** FyfeFRP LLC | 15341 Vantage Parkway East. Houston, TX 77073 | +1 855.708.3617  
**Emergency Phone Number:** 800.424.9300 (CHEMTREC)  
 +1 703.741.5970 (Outside the US)  
**Product Description:** Epoxy solution  
**Product Use:** Intended to repair pipes  
**Chemical Name or Synonym:** N/A

**Section 2. Hazards Identification**

**Classification of the substance or mixture:**

Skin corrosion/irritation – Category 2  
 Serious eye damage/eye irritation – Category 2A  
 Skin sensitization - Category 1  
 Hazardous to the Aquatic Environment – Long Term Hazard – Category 2

**Label Elements:**



**Hazard Statements:**

H315 Causes skin irritation.  
 H319 Causes serious eye irritation  
 H317 May cause an allergic skin reaction  
 H411 Toxic to aquatic life with long lasting effects

**Signal Word:** Warning

**Precautionary Statement:**

P362 - Take off contaminated clothing and wash before reuse  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P273 - Avoid release to the environment  
 P391 - Collect spillage

**Section 3. Composition/ Information on Ingredients**

Chemical Name	CAS-No	Weight %
Phenol, polymer with formaldehyde, glycidyl ether	28064-14-4	40 – 70
Bisphenol A - Epichlorohydrin polymer	25068-38-6	20 – 35



Barium sulfate	7727-43-7	5 – 10
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**Section 4. First Aid Measures****First Aid Measures for Accidental:**

**General Advice:** If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Remove material from skin immediately. In the case of skin irritation or allergic reactions see a physician.

**Ingestion:** Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation:** Move to fresh air. If symptoms persist, call a physician.

**Protection of First aiders:** Use personal protective equipment. Avoid contact with skin, eyes and clothing

**Most important symptoms/effects, acute and delayed:**

**Most Important Symptoms/Effects:** Hives. Itching. Rashes. Eye irritation/reactions. Skin irritation

**Notes to Physician:** May cause sensitization of susceptible persons. Treat symptomatically

**Section 5. Fire Fighting Measures**

**Suitable Extinguishing Media:** Water fog. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.

**Unsuitable Extinguishing Media:** No information available.

**Special hazards arising from the chemical:** May cause sensitization by skin contact. Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides

**Special protective equipment and precautions for fire-fighters:** As in any fire, wear self-contained breathing apparatus and full protective gear.

**Section 6. Accidental Release Measures**

**Personal Precautions, Protective Equipment and Emergency Procedures:** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

**Environmental precautions:** Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Avoid release to the environment.

**Methods and materials for containment and cleaning up:** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water.

**Section 7. Handling and Storage**

**Precautions for safe handling:** Handle in accordance with good industrial hygiene and safety practice. Do not breathe vapors or spray mist. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not take internally.



**Conditions for safe storage including any incompatibilities:** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers. When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing. Wash thoroughly after handling.

## Section 8. Exposure Controls / Personal Protection

### Control Parameters (Exposure Limits):

Component	Exposure Limits		
	ACGIH-TLV	NIOSH	OSHA-PELs
Barium Sulfate	10 mg/m <sup>3</sup> TWA (total dust)	10 mg/m <sup>3</sup> TWA (total dust) 5 mg/m <sup>3</sup> TWA (Respirable fraction)	-

**Appropriate Engineering Controls:** Ensure adequate ventilation, especially in confined areas.

### Personal Protective Equipment:

**Eye Protection:** Safety glasses with side-shields. Risk of contact: Tightly fitting safety goggles.

**Skin and Body Protection:** Impervious clothing.

**Hand Protection:** Impervious gloves.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**Environmental Exposure Controls:** Do not allow material to contaminate ground water system.

## Section 9. Physical and Chemical Properties

<b>Physical State:</b>	Viscous liquid
<b>Colour:</b>	Yellow
<b>Odour:</b>	No information available
<b>Melting Point/Freezing Point:</b>	No data available
<b>Boiling point:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Lower and Upper Explosion limits/Flammability Limits:</b>	No data available
<b>Flash Point:</b>	No data available
<b>Auto-ignition Temperature:</b>	No data available
<b>Decomposition Temperature:</b>	No data available
<b>pH:</b>	No data available
<b>Kinematic Viscosity:</b>	~90,300 cP
<b>Solubility:</b>	No data available
<b>Evaporation rate (ether=1):</b>	No data available
<b>Flammability Limits in Air:</b>	No data available
<b>Solubility in other solvents:</b>	No data available
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Vapor Pressure:</b>	No data available
<b>Density and/or Relative Density:</b>	1.25 g/cm <sup>3</sup>
<b>Relative Vapour Density:</b>	No data available



Particle Characteristics: No data available

Section 10. Stability and Reactivity

Reactivity: Not data available
Chemical Stability: Stable under standard normal conditions.
Possibility of Hazardous reactions: None under normal processing.
Conditions to Avoid: To avoid thermal decomposition, do not overheat. Incompatible products.
Incompatible Materials / Chemicals: Acids. Bases. Amines. Strong oxidizing agents.
Hazardous Decomposition Products: Phenols. Carbon monoxide (CO), carbon dioxide (CO2).

Section 11. Toxicological Information

Information in the likely route of exposure:

Potential Acute Health Effects:

Inhalation: No known effect.
Eye Contact: Irritating to eyes. Causes serious eye irritation.
Skin Contact: Irritating to skin. Causes skin irritation. May cause allergic skin reaction
Ingestion: May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics:

Sensitization: May cause sensitization of susceptible persons. May cause sensitization by skin contact.
Mutagenic Effects: No information available.
Carcinogenic Effects: No information available.
Reproductive Toxicity: No information available.
Developmental Toxicity: No information available.
STOT - single exposure: No information available.
STOT - repeated exposure: No information available.
Target Organ Effects: Eyes. Respiratory system.
Aspiration Hazard: No information available.

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

Short term exposure: No specific data.
Long term exposure: No specific data

Numerical measures of toxicity

Acute toxicity:

Table with 4 columns: Chemical Name, LD50 Oral, LD50 Dermal, LC50 Inhalation. Row 1: Bisphenol A – Epichlorohydrin polymer, 11,400 mg/kg (rat), -, -

Section 12. Ecological Information

Ecotoxicity Effects: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persistence and degradability: No information available
Bioaccumulative potential: No information available



Mobility in soil: Absorbs on soil
Other adverse effects: No information available

Section 13. Disposal Considerations

Waste treatment methods: Dispose of in accordance with local regulations
Uncleaned packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport Information

DOT : Not regulated as hazardous for transport by ground (U.S.)

IATA

UN-Number: UN3082
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Phenol, polymer with formaldehyde, glycidyl ether)
Hazard Class: 9
Packing Group: III
Note: When packed with non-DG materials Special Provision A197 applies for inner container quantities of 5L or less.
ERG Code: 9L

IMDG/IMO

UN-Number: UN3082
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Phenol, polymer with formaldehyde, glycidyl ether)
Hazard Class: 9
Packing Group: III
Marine Pollutant: Product is a marine pollutant according to the criteria set by IMDG/IMO.
Environmental hazard: Yes
Special Provisions: None.
EmS No.: F-A, S-F
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No information available.
Classification Code: M6
Tunnel Restriction Code: (E)

Section 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:
International Inventories:

Table with 8 columns: TSCA, EINECS/ELIN CS, DSL/NDSL, PICCS, ENCS, IECSC, AICS, KECL. All cells contain a hyphen (-).

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory



**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**Chemical Safety Assessment:** No information available

#### Section 16. Other Information

##### Key Legend Information:

N/A – Not Applicable

ND – Not Determined

OSHA – Occupational Safety and Health Administration

NIOSH – National Institute for Occupational Safety and Health

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