


**TYFO® FC, PART A**
**Section 1. Product and Company Identification**

**Product Name:** Tyfo® FC, Part A  
**Supplier:** FyfeFRP LLC | 621 Lockhaven Drive. Houston, TX 77073 | +1 281.590.8491  
**Emergency Phone Number:** 800.424.9300 (CHEMTREC)  
 +1 703.741.5970 (Outside the US)  
**Product Description:** Epoxy resin  
**Product Use:** For professional use only

**Section 2. Hazards Identification**
**Classification of the substance or mixture**

Skin Corrosion/irritation – Category 2  
 Eye damage/irritation – Category 2  
 Sensitization/skin – Category 1  
 Aquatic Chronic – Category 2

**Label Elements:**

**Hazard Statement(s):**

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

**Signal Word:** Warning

**Precautionary Statement(s):**

P261 - Avoid breathing vapors  
 P264 - Wash hands thoroughly after handling  
 P271 - Use only outdoors or in a well-ventilated area  
 P272 - Contaminated work clothing must not be allowed out of the workplace  
 P280 - Wear eye protection, protective clothing, protective gloves  
 P302+P352 - If on skin: Wash with plenty of water  
 P305+P351+P338 - 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 advice/attention  
 P312 - Call a doctor if you feel unwell  
 P332+P313 - If skin irritation occurs: Get medical advice/attention  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention  
 P337+P313 - If eye irritation persists: Get medical advice/attention  
 P362+P364 - Take off contaminated clothing and wash it before reuse  
 P363 - Wash contaminated clothing before reuse



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

P405 - Store locked up

P501 - Dispose of contents/container in accordance with local, regional, national and/or international regulation

### Section 3. Composition/ Information on Ingredients

Chemical Name	CAS-No	Weight %
Bisphenol A - Epoxy Resin	25068-38-6	44 – 50
Silicones and Siloxanes, dimethyl reaction products with silica	67762-90-7	0.1 – 1.0

### Section 4. First Aid Measures

#### **First Aid Measures for Accidental:**

**General:** Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital

**Inhalation:** Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

**Ingestion:** Rinse mouth with water. Do not induce vomiting. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Call a poison center/doctor/physician if you feel unwell.

**Eye contact:** Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin contact:** Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

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

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after skin contact: Irritation. May cause an allergic skin reaction

Symptoms/injuries after eye contact: Eye irritation.

**Indication of immediate medical attention and special treatment needed:** Treat symptomatically.

### Section 5. Fire Fighting Measures

**Suitable Extinguishing Media:** Water spray. Polyvalent foam. Carbon dioxide.

#### **Advice for Fire-fighters:**

**Protection during firefighting:** Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.



**Specific Hazards Arising from the substance or mixture:** The product is non-reactive under normal conditions of use, storage and transport.

#### Section 6. Accidental Release Measures

**Personal Precautions, Protective Equipment, and Emergency Procedures:** Wear Gloves. Face-shield. Protective clothing. Mark the danger area. No naked flames. Wash contaminated clothes. In case of reactivity hazard: consider evacuation.

**Environmental Precautions:** Avoid release to the environment. Notify authorities if product enters sewers or public waters.

**Methods and Materials for Containment and Cleaning Up:** Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. Dispose of materials or solid residues at an authorized site.

#### Section 7. Handling and Storage

**Precautions for safe handling:** Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

**Hygiene measures:** Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

**Conditions for safe storage including any incompatibilities:** Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

#### Section 8. Exposure Controls / Personal Protection

**Control Parameters (Exposure Limits):** No information available.

**Appropriate Engineering Control:** Ensure good ventilation of the workstation.

**Personal Protective Equipment:**

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

**Eye / Face Protection:** Wear chemical safety glasses.

**Skin Protection:** Wear suitable protective clothing. Wear gloves

**Environmental exposure controls:** Avoid release to the environment.

#### Section 9. Physical and Chemical Properties

**Physical state:** Liquid  
**Color:** Milky



Odor:	Slight
Odor threshold:	No data available
pH:	No data available
Melting point:	Not applicable
Freezing point:	No data available
Boiling point:	> 320 °C (DSC test)
Flash point:	> 260 – 268 °C Closed cup
Relative evaporation rate (butyl acetate=1):	No data available
Flammability (solid, gas):	No data available
Explosion limits:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Relative vapor density at 20 °C:	No data available
Specific Gravity / density:	No data available
Solubility:	No data available
Log Pow:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, dynamic:	No data available
Explosion limits:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

## Section 10. Stability and Reactivity

**Reactivity:** The product is non-reactive under normal conditions of use, storage and transport.

**Chemical Stability:** Stable under normal conditions.

**Possibility of Hazardous reactions:** No dangerous reactions known under normal conditions of use.

**Conditions to Avoid:** None under recommended storage and handling conditions (see section 7).

**Incompatible Materials / Chemicals:** No additional information available.

**Hazardous Decomposition Products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological Information

### Information on toxicological effects:

**Acute toxicity:** Not classified

### Epoxy Resin

LD50 oral rat: > 2,000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)

LD50 dermal rat: > 2,000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

**Skin corrosion/irritation :** Causes skin irritation.



**Serious eye damage/irritation:** Causes serious eye irritation.  
**Respiratory or skin sensitization:** May cause an allergic skin reaction.  
**Germ cell mutagenicity:** Not classified  
**Carcinogenicity:** Not classified  
**Reproductive toxicity:** Not classified  
**Specific target organ toxicity – single exposure:** Not classified  
**Specific target organ toxicity – repeated exposure:** Not classified  
**Aspiration hazard:** Not classified

**Symptoms/injuries after inhalation:** May cause respiratory irritation  
**Symptoms/injuries after skin contact:** Irritation. May cause an allergic skin reaction.  
**Symptoms/injuries after eye contact:** Eye irritation.

## Section 12. Ecological Information

**Ecotoxicity:** No information available.

### Toxicity:

Ingredients	LC50 Fish	EC50 Daphnia
Epoxy Resin	2.3 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss; Semi-static system; Fresh water; Experimental value)	1.1 - 2.8 mg/l (EC50; Equivalent or similar to OECD 202; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)

### Persistence and degradability:

Epoxy resin: Not readily biodegradable in water. Hydrolysis in water. Low potential for adsorption in soil.

### Bioaccumulative potential:

Epoxy resin:  $\geq 2.918$  (Experimental value)

Bioaccumulative potential: Low potential for bioaccumulation (BCF < 500).

### Mobility in soil:

Epoxy resin: Surface tension: 0.0 587-0.0589, 20 °C

Log Koc: SRC PCKOCWIN v2.0; 2.65; QSAR

**Other adverse effects:** No known ecological damage caused by this product.

## Section 13. Disposal Considerations

**Waste treatment methods:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Uncleaned packaging:** Do not re-use empty containers for food, clothing, or products for human or animal consumption, or where skin contact can occur. Dispose of container and unused contents in accordance with federal, state, and local regulations.

## Section 14. Transport Information

### US DOT:



Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epoxy Resin)  
UN number: UN3082  
Hazard Class: 9  
Packing Group: III  
DOT Packaging Non Bulk (49 CFR 173.xxx): 203  
DOT Packaging Bulk (49 CFR 173.xxx): 241  
DOT Symbols: G - Identifies PSN requiring a technical name  
DOT Packaging Exceptions (49 CFR 173.xxx): 155  
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): No limit  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): No limit  
DOT Vessel Stowage Location: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

**IMDG**

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epoxy Resin)  
UN number: UN3082  
Hazard Class: 9  
Packing Group: III

**IATA**

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epoxy Resin)  
UN number: UN3082  
Hazard Class: 9  
Packing Group: III

**Section 15. Regulatory Information****Safety, health and environmental regulations/legislation specific for the substance or mixture****Federal Regulations:**

All ingredients are listed on the United States TSCA (Toxic Substances Control Act) inventory

**International regulations****Canada:**

WHMIS Classification: Class D Division 2 Subdivision B - Toxic material causing other toxic effects

**EU-Regulations:** No additional information available

**National regulations:** No additional information available

**US State regulations:** No additional information available

**Section 16. Other Information****Key Legend Information:**

CAS: Chemical Abstracts Service  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods  
NIOSH: National Institute for Occupational Safety and Health  
OSHA: Occupational Safety and Health Administration



## SAFETY DATA SHEET

### TYFO® FC, PART A

The information contained herein is based on the data available to us and is believed to be accurate. The data is offered in good faith as typical values and not as product specification. The information in this data sheet was compiled from information supplied by the vendors of the components of this compound. Fyfe Co., LLC makes no warranty either expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. The recommended industrial hygiene and safe handling procedures are believed to be genuinely applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. Fyfe Co., LLC assumes no responsibility for injury from the use of the product described herein. The information is intended only to assist in the safe handling of this material. Fyfe Co., LLC DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR FREEDOM FROM PATENT INFRINGEMENT. Fyfe Co., LLC WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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