SAFETY DATA SHEET

FGCI FiberGlass Coatings, Inc.

Date Prepared : 01/28/2014
SDS No : 125470
Date Revised : 06/03/2016
Revision No : 2

Laminating Epoxy Resin

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Laminating Epoxy Resin
GENERAL USE: Liquid thermoset resin for composite manufacture.
PRODUCT DESCRIPTION: Epoxy Resin Solution
PRODUCT CODE: 125470

MANUFACTURER

Fiberglass Coatings Inc.
4301A 34th Street North
St. Petersburg, FL 33714
Customer Service: (800) 272-7890
E-Mail: www.fgci.com
Emergency Contact: Chem-Tel
Emergency Phone: (800) 255-3924

24 HR. EMERGENCY TELEPHONE NUMBERS

Chem-Tel (800) 255-3924

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Eye Irritation, Category 2
Skin Irritation, Category 2
Skin Sensitization, Category 1
Acute Toxicity (Dermal), Category 5
Acute Toxicity (Oral), Category 5

Environmental:

Acute Hazards to the Aquatic Environment, Category 1

GHS LABEL

Exclamation mark

Environment

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H320: Causes eye irritation.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H313: May be harmful in contact with skin.
H303: May be harmful if swallowed.

H411: Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENT(S)

Prevention:

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.

Response:

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing.
P391: Collect spillage.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear to light yellow, syrup.

IMMEDIATE CONCERNS: Skin, eye and possible throat irritation. Can cause skin sensitization.

POTENTIAL HEALTH EFFECTS

EYES: Can cause eye irritation. Symptoms include: stinging, tearing, redness, and swelling of the eyes.

SKIN: Can cause skin irritation. Prolonged or repeated contact may cause sensitization. Symptoms include redness, burning, and drying and cracking of skin, burns and other skin damage.

INGESTION: Minimal risk from ingestion during normal industrial use.

INHALATION: May cause allergic reaction.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Bisphenol A Based Epoxy Resin	75 - 85	25068-38-6
Alkyl (C12-C14) Glycidyl Ether	12 - 15	68609-97-2
Bisphenol F Based Epoxy Resin.	5 - 10	28064-14-4

COMMENTS: The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

EYES: Flush eyes with water for at least 15 minutes, holding eyelids open. Remove contact lenses if present and easy to do so. Seek immediate medical attention.

SKIN: Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

INGESTION: First aid not normally required. If symptoms develop, seek medical attention.

INHALATION: If signs and symptoms develop, remove person to fresh air. If signs or symptoms persist, obtain medical attention.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: May be combustible at high temperature.

EXTINGUISHING MEDIA: Water fog or fine spray, Dry Chemical, CO2, or Foam, use an extinguishing media suitable to any surrounding fire.

EXPLOSION HAZARDS: Closed containers may rupture or explode when heated.

FIRE FIGHTING PROCEDURES: Evacuate any non-essential personnel. Extinguish all ignition sources if safe to do so. Use water to cool exposed containers and structures until fire is out. Avoid spreading burning material with water used for cooling purposes.

FIRE FIGHTING EQUIPMENT: Full Bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus (SCBA).

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Dike and contain. Contain run-off and dispose of properly. Remove contaminated soil to remove contaminated trace residues.Absorb with material such as sand, or polypropylene or polyethylene fiber products. Collect in suitable and properly label containers. Remove residual using hot soapy water. Residual can be removed with solvent. Solvents are not recommended for clean-up unless recommended exposure guidelines and safe handling practices for the specific solvent are followed. Consult appropriate solvent MSDS for handling instructions.

LARGE SPILL: Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Do not allow spill to enter drains, sewers or waterways.

GENERAL PROCEDURES: Always ensure proper ventilation from any spill. Respirators or SCBA are required if permissible exposure limits are exceeded due to inadequate general ventilation. All spills should be contained as best as possible. All chemical spills should be assumed to be hazardous to the environment to ensure safety.

SPECIAL PROTECTIVE EQUIPMENT: See Section 8 personal protection. Persons not wearing proper personal protection should be excluded from the spill area until clean-up is completed.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with skin, eyes and clothing.

HANDLING: Keep away from heat.

STORAGE: Storage is best in the original containers at temperatures between 70 to 85 F (20 to 30 C).
Product may crystallize upon extended storage but can be returned to usable condition upon warming back to a liquid state

STORAGE TEMPERATURE: 2°C (36°F) Minimum to 43°C (109°F) Maximum

Notes: Material may crystallize during prolonged storage. Material can be warmed up to (160F) to dissolve crystals and used as recommended.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
	EXPOSURE LIMITS			
Chemical Name	**Type**		**ppm**	**mg/m³**
Bisphenol A Based Epoxy Resin	**OSHA PEL**	**TWA**	N/E [1]	[1]
	ACGIH TLV	**TWA**	N/E	
Alkyl (C12-C14) Glycidyl Ether	**OSHA PEL**	**TWA**	N/E [1]	[1]
	ACGIH TLV	**TWA**	N/E	
Bisphenol F Based Epoxy Resin.	**OSHA PEL**	**TWA**	[2]	[2]
	ACGIH TLV	**TWA**	[2]	[2]
Footnotes: **1**. N/E = Not Established **2**. Not yet Determined				

ENGINEERING CONTROLS: Provide ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits (PEL/TLV). Any installed emergency eye wash station or safety showers should be located near the work area.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical splash goggles and/or face shield. Always use proper eye protection around the work area.

SKIN: Wear impermeable gloves. Clothing should limit skin exposure. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with product. Maintain eyewash and shower station near work area in case of exposure.

RESPIRATORY: Vapor respirator may be required if exposure limits are exceeded. Use a NIOSH approved respirator or equivalent when required. Proper mechanical ventilation should be installed to ensure the exposure levels are below the allowable thresholds (PEL/TLV).

WORK HYGIENIC PRACTICES: Never eat or drink in areas where the chemical is being used. Wash hands after handling to limit exposure.This product is intended for use in conjunction with an amine type curing agent which may present hazards not listed in this SDS. Review SDSs from each product before mixing.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Viscous liquid.

ODOR: Slight Odor.

APPEARANCE: Colorless to pale yellow liquid.

pH: No data available.

FLASH POINT AND METHOD: 174°C (345°F) Closed Cup

FLAMMABLE LIMITS: No data available.

AUTOIGNITION TEMPERATURE: No data available.

VAPOR PRESSURE: 0.1 mm Hg @ 20 C

BOILING POINT: > 216°C (420°F)

SOLUBILITY IN WATER: Slightly soluble

EVAPORATION RATE: Negligible

SPECIFIC GRAVITY: 1.12 (Water = 1)

VISCOSITY #1: 1300 to 1400 cP

10. STABILITY AND REACTIVITY

REACTIVITY: Yes

HAZARDOUS POLYMERIZATION: Will not occur.

STABILITY: This product is stable under normal conditions of storage and use.

CONDITIONS TO AVOID: Avoid contact with incompatible materials and ignition sources or heat.

INCOMPATIBLE MATERIALS: Avoid all unplanned contact with strong reactive chemicals, Acids, Bases, Aliphatic Amines, and Oxidizers.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Chemical Name	ORAL LD_{50} (rat)	DERMAL LD_{50} (rabbit)
Bisphenol A Based Epoxy Resin	> 5000 mg / kg (Rat)	> 20000 mg / kg (Rabbit)
Alkyl (C12-C14) Glycidyl Ether	17100 mg / kg (Rat)	> 4000 mg / kg (Rabbit)

DERMAL LD_{50}: 23000 mg/kg (Rabbit)

Notes: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

ORAL LD_{50}: > 15000 mg/kg (Rat)

Notes: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

INHALATION LC_{50}: Acute Inhalation Toxicity - At room temperature, exposure to vapors is minimal due to low volatility. Vapor from heated material, mist or aerosols may cause respiratory irritation. The LC50 has not been determined.

SKIN CORROSION/IRRITATION: Prolonged / repeated skin contact may cause skin irritation with local redness.

SERIOUS EYE DAMAGE/IRRITATION: May cause eye irritation. Corneal injury is unlikely.

RESPIRATORY OR SKIN SENSITISATION: Dermal sensitization to this product or component has been seen in some humans. The results of a test on guinea pigs showed this substance to be a weak skin sensitizer. Sensitization has occurred in laboratory animals after repeated exposures.

CARCINOGENICITY

NOTES: Not considered carcinogenic by OSHA, NTP, or IARC.

REPRODUCTIVE TOXICITY: In animals studies, did not interfere with reproduction.

STOT-SINGLE EXPOSURE: Evaluation of availble data suggests that the material is not an STOT-SE toxicant.

STOT-REPEATED EXPOSURE: Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticiapted to cause any significant adverse effects.

ASPIRATION HAZARD: Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Based on stringent OECD test guidelines this material cannot be considered as readily biodegradable: however these results do not mean that the material is not biodegradable under environmental conditions.

ECOTOXICOLOGICAL INFORMATION: Do NOT discharge into sewers or waterways.

BIOACCUMULATION/ACCUMULATION: Product shows moderate potential for bioaccumulation. Potential for mobility in soil is low. Not readily biodegradable.

AQUATIC TOXICITY (ACUTE): Values for : Alkyl (C12-C14) Glycidyl Ether (CAS# 68609-97-2):

96-HOUR LC_{50}: 2 mg/L (Oncorhynchys mykiss)

48-HOUR EC_{50}: 1.8 mg/L (Daphnia Magna)

96-HOUR EC_{50}: 11 mg/L (Algae)

Notes: Material is a Marine Pollutant.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be in accordance with all Federal, State, and local regulations. Empty containers may still be considered dangerous due to residual vapors/liquid/dust.

FOR LARGE SPILLS: Construct dikes to prevent entrance of chemical into sewers or waterways. Refer to section 6 and contact relevant environmental authorities.

PRODUCT DISPOSAL: Incinerate or dispose of in a licensed facility. Do not discharge substance/product into sewer system.

EMPTY CONTAINER: Empty containers as defined under 40 CFR 261.7 or other applicable State or provincial regulations or transportation regulations are not classified as hazardous waste.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not regulated for transport

AIR (ICAO/IATA)

SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin)

UN/NA NUMBER: 3082

PRIMARY HAZARD CLASS/DIVISION: 9

PACKING GROUP: III

VESSEL (IMO/IMDG)

SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin)

UN/NA NUMBER: 3082

PRIMARY HAZARD CLASS/DIVISION: 9

PACKING GROUP: III

EmS: F-A; S-F

MARINE POLLUTANT #1: Listed.

COMMENTS: This information is not intended to convey all specfic regulatory or operation requirements/information relating to this product. Transportation classifications may vary by container volume and may be influnced by resgional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Immediate (Acute) health hazard.

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

313 REPORTABLE INGREDIENTS: None

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: None required

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: Listed on the United States TSCA inventory.

TSCA STATUS: All Components listed.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: This product is a " Hazardous Chemical " as defined by the OSHA hazardous Communication Standard 29 CFR 1910.1200.

CALIFORNIA PROPOSITION 65: This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

CARCINOGEN: None Expected.

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): Class D-2B: Toxic material causing other toxic effects.

16. OTHER INFORMATION

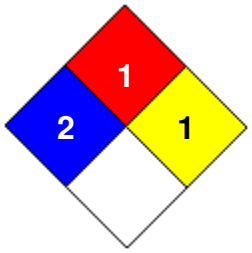
PREPARED BY: BC **Date Revised:** 06/03/2016

REVISION SUMMARY: This MSDS replaces the 01/16/2015 MSDS. Revised: **Section 5:** EXTINGUISHING MEDIA. **Section 14:** COMMENTS, DOT (DEPARTMENT OF TRANSPORTATION) - PROPER SHIPPING NAME.

HMIS RATING

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	1
PERSONAL PROTECTION	

NFPA CODES



HMIS RATINGS NOTES: The customer is responsible for determining the PPE code for this material.

MANUFACTURER DISCLAIMER: This information is compiled from sources believed reliable as of the date of issue, it is provided in good faith and correct to the best of our knowledge. No warranty, guarantee, or representation is made as to the sufficiency of the information for the safe use of the product nor to relieve the end user of their own Federal, State, and local regulatory compliance requirements.