

SAFETY DATA SHEET

Safety Data Sheet



Date Prepared : 08/29/2016

SDS No : 125461

Laminating Epoxy Resin**1. PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: Laminating Epoxy Resin
GENERAL USE: Liquid epoxy for composite manufacturing.
PRODUCT DESCRIPTION: Epoxy Resin

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:**

Skin Irritation/Corrosion, Category 2
 Serious eye damage/eye irritation, Category 2A
 Skin Sensitization, Category 1
 STOT SE, Category 3

Environmental:

Acute Hazards to the Aquatic Environment, Category 2
 Chronic Hazards to the Aquatic Environment, Category 2

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.

H303: May be harmful if swallowed.
 H400: Very toxic to aquatic life.
 H410: Very 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.
 5670DHML: P264: Wash skin thoroughly after handling

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.
 P302+P350: IF ON SKIN: Gently wash with plenty of soap and water.

Storage:

P403: Store in a well-ventilated place.

Disposal:

P273: Avoid release to the environment.
 1048ZK1E: Dispose of product and container according to Federal, State and local regulations.

EMERGENCY OVERVIEW

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

CANCER STATEMENT: Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol A (DGEBA). Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBA is not classified as a carcinogen. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBA is carcinogenic.

COMMENTS: Aspiration Hazard: Based on physical properties, not likely to be an aspiration hazard.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Bisphenol A Based Epoxy Resin	75 - 85	25068-38-6
Oxirane, Mono[(c12-14-alkyloxy)methyl] Derivs	12 - 15	68609-97-2
Bisphenol F Based Epoxy Resin	5 - 10	28064-14-4

COMMENTS: The exact percentage (concentration) of composition has been withheld as a trade secret. If CAS number is "Proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

EYES: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If lasting effects occur, consult a physician, preferably an ophthalmologist. A suitable emergency eye wash facility should be available in work area.

SKIN: 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.

INGESTION: If swallowed, DO NOT induce vomiting, call a physician immediately.

INHALATION: If inhaled, remove person to fresh air and aid in breathing if necessary. Seek medical aid.

NOTES TO PHYSICIAN: If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at control of symptoms and clinical condition of the patient.

COMMENTS: Most important symptoms and effects, both acute and delayed: Aside from the information found under description of first aid measures (above) and indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: May be combustible at high temperature.

EXTINGUISHING MEDIA: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

FIRE FIGHTING PROCEDURES: Evacuate any non-essential personnel. Extinguish all ignition sources if safe to do so. Move container from fire area if this is possible without hazard. Use water to cool exposed containers and structures until fire is out. Avoid spreading burning material with water jet stream used for cooling purposes, However burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Fight fire from protected location or safe distance. Contain fire water run-off if possible to prevent environmental damage. Review the "Accidental Release Measures" and Ecological Information" sections of this SDS.

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: Extinguish all nearby ignition sources. Stop leak if it can be done safely. Prevent from entering waterways and sewers. Absorb with non-combustible material and transfer into appropriate disposal container using non-sparking tools.

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. Wash spillages into an effluent treatment plant or proceed as follows. 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, State and Federal regulations

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Prevent from entering in to soil, ditches, sewers, waterways and/or groundwater.

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. Evacuate personnel to a safe area.

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: Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Application of direct flame to a container of liquid epoxy resin can also cause explosion and or fire.

STORAGE: Store in a cool, dry, well-ventilated area. Keep container closed when not being used.

STORAGE TEMPERATURE: Store in a cool, dry place. Keep container tightly closed.
Storage temperature.

<= 40 C (104 F)

COMMENTS: Personal Protective Equipment for eye and skin exposure is required, see Section 8; for specific recommendations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
Chemical Name	EXPOSURE LIMITS		ppm	mg/m ³
	Type			
Bisphenol A Based Epoxy Resin	OSHA PEL	TWA	N/E [1]	[1]
	ACGIH TLV	TWA	N/E	
Oxirane, Mono[(c12-14-alkyloxy)methyl] Derivs	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 vapors 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).

PROTECTIVE CLOTHING: Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

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.

ODOR THRESHOLD: No data available.

APPEARANCE: Clear to yellowish color syrup.

pH: No data available.

PERCENT VOLATILE: No data available.

FLASH POINT AND METHOD: 118°C (245°F) Pensky Martin Closed Cup ASTM D 93

FLAMMABLE LIMITS: No data available.

AUTOIGNITION TEMPERATURE: Not yet determined.

VAPOR PRESSURE: 0.06 mm Hg @ 20 C

VAPOR DENSITY: No data available.

BOILING POINT: > 216°C (420°F)

FREEZING POINT: No data available.

MELTING POINT: No data available.

THERMAL DECOMPOSITION: No data available.

SOLUBILITY IN WATER: Slightly soluble.

EVAPORATION RATE: No data available.

DENSITY: 1.12 g/cm³ at 25°C (77°F)

SPECIFIC GRAVITY: 1.16 (Water = 1)

VISCOSITY #1: 900 to 1100 cP at 25°C (77°F) Brookfield

(VOC): No data available.

WEIGHT PER VOLUME: No data available.

10. STABILITY AND REACTIVITY

REACTIVITY: Stable under recommended storage conditions.

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.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products depend upon temperature, air supply and presence of other materials. Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water.

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

COMMENTS: Conditions to avoid: Avoid short term exposure to temperatures above 300 C.

Potentially violent decomposition can occur above 350 C.

Avoid prolonged exposure to temperatures above 250 C.

Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)
Bisphenol A Based Epoxy Resin	> 15000 mg / kg (Rat)	> 23000 mg / kg (Rabbit)
Oxirane, Mono[(c12-14-alkyloxy)methyl] Derivs	17100 mg / kg (Rat)	> 4000 mg / kg (Rabbit)

NOTES: COMPONENT INFLUENCING TOXICOLOGY

Propane, 2,2-bis [p-(2,3-epoxypropoxy)phenyl]-, polymers/DGEBPA

Acute Inhalation toxicity

The LC50 has not been determined.

Bisphenol F based epoxy resin

Acute Inhalation toxicity

The LC50 has not been determined.

Alkyl(C12-14) glycidal ether

Acute toxicity (inhalation):

Excessive exposure may cause irritation to upper respiratory tract (nose and throat). For narcotic effects: No relevant data found.

LC50, Rat, 4 Hour, vapor, 0.206 mg/l. No deaths occurred following exposure to a saturated atmosphere.

SKIN CORROSION/IRRITATION: Brief contact may cause moderate skin irritation with local redness.

SERIOUS EYE DAMAGE/IRRITATION: May cause eye irritation. Corneal injury is unlikely. Vapor may cause eye irritation experienced as mild discomfort and redness.

RESPIRATORY OR SKIN SENSITISATION: A component in this mixture has caused allergic skin reactions in humans.

Contains component(s) which have caused allergic skin sensitisation in guinea pigs.

Contains component(s) which have demonstrated the potential for contact allergy in mice.

For respiratory sensitisation: No relevant data found.

GERM CELL MUTAGENICITY: Contains component(s) which were negative in some in vitro genetic toxicity studies and positive in others. Contains component(s) which were negative in animal genetic toxicity studies.

CARCINOGENICITY

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

REPRODUCTIVE TOXICITY: In animal studies, resins based on the diglycidal ether of bisphenol A (DGEBPA) have been shown not to interfere with reproduction.

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

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

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

GENERAL COMMENTS: Resins based on diglycidyl ether of bisphenol A (DGEBPA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, most likely route of exposure, or when pregnant rats or rabbits were exposed orally. Contains component(s) which did not cause birth defects in laboratory animals.

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 certain 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 LC₅₀: 0.002 mg/L (Oryzias latipes)

48-HOUR EC₅₀: 0.003 mg/L (Crustaceans)

96-HOUR EC₅₀: 0.003 mg/L (Algae)

Notes: Material is a Marine Pollutant.

COMMENTS: ADDITIONAL ECOTOXICOLOGICAL INFORMATION:

Toxicity:

Propane, 2,2-bis[p-(3-epoxypropoxy)phenyl]-, polymers/DGEBPA

Acute toxicity to fish

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), semi static test, 96 Hour, 2mg/L.

Aquatic Toxicity to aquatic invertebrates:

EC50, Daphnia magna (Water flea), static test, 48hrs, 1.8mg/l.

Acute Toxicity to Aquatic Plants/Algae

ErC50, Scenedesmus capricornutum (fresh water algae), static test, 72 Hour, Growth rate inhibition, 11 mg/L.

Toxicity to bacteria

IC50, Bacteria, 18 Hour, Respiration rates, >42.6 mg/L.

Chronic toxicity aquatic invertebrates:

NOEC, Daphnia magna (water flea), semi-static test, 21d, number of offsprings, 0.3mg/L.

MATC (Maximum Acceptable Toxicant Level), Daphnia magna (water flea), semi-static test, 21d, number of offsprings, 0.55mg/L.

Bisphenol F Based Epoxy Resin

Acute toxicity to fish

For similar material(s):

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10mg/L in the most sensitive species tested).

Alkyl (C12-14) glycidyl ether

Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by water fowl or aquatic life.

LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, >5,000 mg/l.

LC50, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, 1800 mg/l, other guidelines.

Acute toxicity to algae/aquatic plants

EbC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth inhibition (cell density reduction), 843 mg/l.

NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth inhibition (cell density reduction), 500 mg/l.

Persistence and degradability

Propane, 2,2-bis[p-(3-epoxypropoxy)phenyl]-, polymers/DGEBPA

Biodegradability: Based on stringent OECD test guidelines, this material can not be considered as readily biodegradable under environmental conditions.

10-day Window: Not applicable.

Biodegradation: 12%

Exposure time: 28d

Method: OECD Test Guidelines 302B or Equivalent.

Theoretical Oxygen Demand: 2.35 mg/mg Estimated.

Photodegradation

Test Type: Half-life (indirect photolysis).

Sensitizer: OH radicals.

Atmospheric half-life: 1.92 Hour.

Method: Estimated.

Bisphenol F Based Epoxy Resin

Biodegradability: For similar material(s):Based on stringent OECD test guidelines, this material can not be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Alkyl(C12-14) glycidal ether

Biodegradability: Biodegradation under aerobic static laboratory conditions is moderate (BOD20 or BOD28/ThOD between 10 and 40%).

10-day window: Pass.

Biodegradation: 87%.

Exposure time: 28 d.

Method: OECD Test Guidelines 301F or Equivalent.

Chemical Oxygen Demand: 2.09 mg/mg.

Bioaccumulative potential**Propane, 2,2-bis[p-(3-epoxypropoxy)phenyl]-,polymers/DGEBPA**

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition Coefficient: n-octanol/water(log Pow):3.242 at 25 C Estimated.

Bisphenol F Based Epoxy Resin

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 3.6 at 20 C Estimated.

Alkyl(C12-14) glycidal ether

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). No relevant data found.

Partition coefficient: n-octanol/water(log Pow): 3.77 at 20 C OECD Test Guidelines 107 or Equivalent.

Bioconcentration factor (BCF): 160 Fish. Estimated.

Mobility in soil**Propane, 2,2-bis[p-(3-epoxypropoxy)phenyl]-,polymers/DGEBPA**

Potential for mobility in soil is low (Koc between 500 and 2000).

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Partition coefficient(Koc): 1800-4400 Estimated.

Bisphenol F Based Epoxy Resin

No relevant data found.

Alkyl(C12-14) glycidal ether

Expected to be relatively immobile in soil (Koc>5000).

Partition coefficient(Koc):> OECD 121: HPLC Method.

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.

EMPTY CONTAINER: Empty containers must be disposed of in accordance with all Federal, State, and local requirements.

GENERAL COMMENTS: Waste characterizations and compliance with applicable laws are the sole responsibility of waste generator.

COMMENTS: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.

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 specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional 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 this 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

TITLE III NOTES: This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: None required

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

TSCA STATUS: All Components listed.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: N/A.

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.

CANADA

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

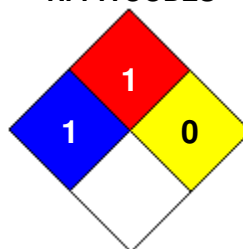
16. OTHER INFORMATION

PREPARED BY: Fiberglass Coatings;Inc. (RV) **Date Prepared:** 08/29/2016

HMIS RATING

HEALTH	<input type="checkbox"/>	1
FLAMMABILITY	<input type="checkbox"/>	1
PHYSICAL HAZARD	<input type="checkbox"/>	2
PERSONAL PROTECTION	<input type="checkbox"/>	

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.