

# SAFETY DATA SHEET



Date Issued : 3/25/2014  
SDS No : 128848  
Date Revised : 7/10/2015  
Revision No : 1

## Marine Resin

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Marine Resin  
**GENERAL USE:** Vinylester resin for use in composite manufacturing and marine construction  
**PRODUCT CODE:** 128848

#### MANUFACTURER

Fiberglass Coatings Inc.  
4301A 34th Street North  
St. Petersburg, FL 33714  
**Customer Service:** (800) 272-7890  
**E-Mail:** [www.fgci.com](http://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, Category 2  
Eye Irritation, Category 2A  
Acute Toxicity (Inhalation), Category 5  
Acute Toxicity (Oral), Category 5

##### Environmental:

Aquatic Toxicity, Category 2

##### Physical:

Flammable Liquids, Category 3

#### GHS LABEL



Flame



Health  
hazard



Exclamation  
mark

**SIGNAL WORD:** WARNING

#### HAZARD STATEMENTS

H226: Flammable liquid and vapor.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H333: May be harmful if inhaled.

H303: May be harmful if swallowed.

H401: Toxic to aquatic life.

## PRECAUTIONARY STATEMENT(S)

### Prevention:

P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.

P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P240: Ground container and receiving equipment to prevent static discharge.

P241: Use explosion-proof electrical, ventilating, and lighting equipment.

P280: Wear protective gloves, protective clothing, eye protection and face protection.

P264: Wash skin thoroughly after handling.

P273: Avoid release to the environment.

### Response:

P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P332+P313: If skin irritation occurs: Get medical attention.

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.

P308+P313: IF exposed or concerned: Get medical advice

### Storage:

P403+P235: Store in a well-ventilated place. Keep cool.

### Disposal:

P501: Dispose of container and its contents in accordance with all Federal, State, and local regulations.

## EMERGENCY OVERVIEW

**PHYSICAL APPEARANCE:** Opaque Amber

**IMMEDIATE CONCERNS:** **Flammable liquid and vapor.** Aspiration hazard if swallowed, may cause lung damage. May cause eye, skin, respiratory, and digestive tract irritation. May cause central nervous system depression (CNS). May cause reproductive and fetus effects. May cause cancer based on animal studies. Uninhibited material may form explosive peroxides.

## POTENTIAL HEALTH EFFECTS

**EYES:** Contact may cause eye irritation.

**SKIN:** May cause moderate to severe skin irritation. Prolonged exposure may cause skin burns.

**INGESTION:** May be harmful if swallowed. Symptoms include: gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration Hazard. Can cause chemical pneumonitis which can be fatal.

**INHALATION:** Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Vapors expected to be slightly irritating.

**CARCINOGENICITY:** IARC: Classified 2B (possible for humans)

**ROUTES OF ENTRY:** Skin, Inhalation, Eyes

**TARGET ORGAN STATEMENT:** Liver, Central nervous system.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Vinylester Resin (Trade Secret)	53.5	N/A
Styrene	42	100-42-5
Alpha-methyl Styrene	2	98-83-9
Silica, Amorphous, Fumed	< 2	112945-52-5
Methyl alcohol	0.5	67-56-1
Cobalt Compounds	< 0.3	N/A

**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:** Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**INGESTION:** Aspiration hazard. If swallowed, Do NOT induce vomiting. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.

**INHALATION:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

**NOTES TO PHYSICIAN: Styrene:** Do not induce vomiting. Gastrointestinal decontamination in accidental petroleum distillate ingestions is not recommended, because of the severe aspiration hazard. Gastric lavage is indicated in those patients who require decontamination. Be sure that an endotracheal tube is in place prior to lavage; use cuffed tubes in patients over 7 years of age. All contaminated clothing should be removed, and contaminated skin areas washed with lipophilic soap, or green soap, and water. If ingested, cardiac and respiratory status must be continuously monitored. Be prepared to give oxygen and, if necessary, intubate. A chest x-ray should be taken immediately after stabilization of breathing and circulation to document aspiration and detect the presence of pneumothorax.

#### 5. FIRE FIGHTING MEASURES

**FLAMMABLE CLASS:** Category 3 Flammable Liquid

**EXTINGUISHING MEDIA:** Small Fire: Water spray or fog, Alcohol-resistant foam, Dry chemical powder, carbon dioxide, sand or earth can be used for small fires.

Large Fire: Water spray or fog, Alcohol-resistant foam. Do not discharge extinguishing waters into the aquatic environment.

**HAZARDOUS COMBUSTION PRODUCTS:** Produces carbon oxides (CO, CO<sub>2</sub>).

**FIRE FIGHTING PROCEDURES:** Cool containers with flooding quantities of water until well after fire is out to avoid pressure build up, autoignition or explosion.

**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:** Absorb with an inert material and put the spilled material in an appropriate waste disposal container.

**LARGE SPILL:** Flammable liquid. Keep away from heat and other sources of ignition. Eliminate all ignition sources. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into

sewers, basements or confined areas; dike if needed. Be careful that the product is not present at a concentration level above TLV.

## 7. HANDLING AND STORAGE

**HANDLING:** Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Ensure adequate ventilation. Ground and bond containers when transferring material. Use spark proof tools and explosion-proof equipment. Consult your supplier of promoters and catalysts for additional instructions on proper mixing and usage. Empty containers may retain product residue (liquid and/or vapor). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose these containers to heat, flame, sparks, static electricity, or other sources of ignition as the container may explode and may cause injury or death. Empty drums should be completely drained and properly bunged. Empty drums should be promptly returned to a drum reconditioner or properly disposed.

**STORAGE:** Keep away from heat and sources of ignition. No smoking. Keep away from direct sunlight. Keep containers tightly closed in a cool, well-ventilated place. Keep at temperature not exceeding 25°C.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Styrene	TWA	50		20	85
	STEL	100		40	170
Alpha-methyl Styrene	TWA	50		50	
	STEL	100		100	
Silica, Amorphous, Fumed	TWA		6	[1]	10 [1]
Methyl alcohol	TWA	200	260	200	160
	STEL	250	325	250	325

**Footnotes:**  
1. Inhalable

**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. Always use proper eye protection around the work area.

**SKIN:** Wear solvent resistant gloves (consult safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**RESPIRATORY:** If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910. 134.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid.

**ODOR:** Pungent

**APPEARANCE:** Opaque Amber.

**pH:** No data available.

**PERCENT VOLATILE:** 45

**FLASH POINT AND METHOD:** 32°C (98°F) Closed Cup

**FLAMMABLE LIMITS:** 1% to 7%

**AUTOIGNITION TEMPERATURE:** 490°C (914°F)

**VAPOR PRESSURE:** 6.12 mm Hg @ 20 C

**VAPOR DENSITY:** 3.6 (Air =1)

**BOILING POINT:** 145°C (293°F) to 146°C (295°F)

**MELTING POINT:** -30°C (-25°F)

**POUR POINT:** No data available.

**SOLUBILITY IN WATER:** Insoluble.

**EVAPORATION RATE:** < 1 (Butyl Acetate = 1)

**SPECIFIC GRAVITY:** 1.03 to 1.08 (Water = 1)

**VISCOSITY:** No data available.

**(VOC):** No data available.

## 10. STABILITY AND REACTIVITY

**STABLE:** Yes

**HAZARDOUS POLYMERIZATION:** No

**STABILITY:** Stable under recommended storage conditions.

**POLYMERIZATION:** Under normal conditions of use, hazardous reactions will not occur. Extreme heat can cause rapid, uncontrolled polymerization.

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

**INCOMPATIBLE MATERIALS:** Strong acids. Strong oxidizing agents. Metal salts. Polymerization catalysts.

## 11. TOXICOLOGICAL INFORMATION

**ACUTE**

Chemical Name	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)	INHALATION LC <sub>50</sub> (rat)
Styrene	5000 mg / kg (Rat)	> 2000 mg / kg (dermal Rabbit)	11.8 mg/L (4h)
Alpha-methyl Styrene	4900 mg / kg (Rat)		
Silica, Amorphous, Fumed	> 5000 mg / kg (Rat)	> 5000 mg / kg (dermal Rabbit)	2.08 mg/L (4h)
Methyl alcohol	300 mg / kg Human	15800 mg / kg (Rabbit)	64000 ppm (inhalation/rat) (8h)

**EYE EFFECTS:** Causes eye irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury.

**SKIN EFFECTS:** Causes mild skin irritant.

Prolonged or repeated exposure: may cause defatting of the skin, which can lead to dermatitis.

#### CARCINOGENICITY

**IARC:** Group 2B - Possibly carcinogenic for humans.

**NTP:** Reasonably anticipated to be a human carcinogen

**OSHA:** Possible select carcinogen.

**Notes:** Listed by IARC as possibly carcinogenic to humans (Group 2B), based on limited evidence of carcinogenicity in humans and experimental animals.

**TARGET ORGANS:** Cardiac sensitization. Nervous system. Nasal cavity. Lung. Eye. Skin.

## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** Readily Biodegradable.

**ECOTOXICOLOGICAL INFORMATION:** Toxic to fish, invertebrates and microorganisms, however, substantial aquatic exposure is not expected based on the volatile nature of this material.

**BIOACCUMULATION/ACCUMULATION:** This material is not expected to bioaccumulate.

**AQUATIC TOXICITY (ACUTE):** Values are for: Styrene (CAS# 100-42-5)

**96-HOUR LC<sub>50</sub>:** 4-10 mg / L (Fathead Minnow)

**48-HOUR EC<sub>50</sub>:** 4.7 mg/L (Daphnia Magna)

**96-HOUR EC<sub>50</sub>:** 4.9 mg/L (Green Algae)

## 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.

## 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION)**

**PROPER SHIPPING NAME:** Resin Solution

**PRIMARY HAZARD CLASS/DIVISION:** 3

**UN/NA NUMBER:** 1866

**PACKING GROUP:** III

**REPORTABLE QUANTITY (RQ) UNDER CERCLA:** 1000 lbs (STYRENE)

**ROAD AND RAIL (ADR/RID)**

**PROPER SHIPPING NAME:** Resin Solution

**UN NUMBER:** 1866

**HAZARD CLASS:** 3

**PACKING GROUP:** III

**AIR (ICAO/IATA)**

**SHIPPING NAME:** Resin Solution

**UN/NA NUMBER:** 1866

**PRIMARY HAZARD CLASS/DIVISION:** 3

**PACKING GROUP:** III

**VESSEL (IMO/IMDG)**

**SHIPPING NAME:** Resin Solution

**UN/NA NUMBER:** 1866

**PRIMARY HAZARD CLASS/DIVISION:** 3.3

**PACKING GROUP:** III

**15. REGULATORY INFORMATION**

**UNITED STATES**

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**311/312 HAZARD CATEGORIES:** Fire Hazard, Immediate (acute) Health Hazard, Chronic (Delayed) Health Hazard, Reactivity.

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

**313 REPORTABLE INGREDIENTS:** Styrene

**TITLE III NOTES:** Components meeting the requirements are listed.

**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

**CERCLA RQ:** 1000 pounds

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA STATUS:** Listed.

**CALIFORNIA PROPOSITION 65:** This material contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**OSHA HAZARD COMM. RULE:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

**CLEAN WATER ACT:** Listed.

**CANADA**

**DOMESTIC SUBSTANCE LIST (INVENTORY):** Listed.

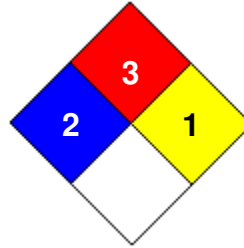
<b>16. OTHER INFORMATION</b>
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**PREPARED BY:** Fiberglass Coatings, Inc. (GS)

**REVISION SUMMARY:** This MSDS replaces the 3/25/2014 MSDS.

**HMIS RATING**

<b>HEALTH</b>	*	<b>2</b>
<b>FLAMMABILITY</b>		<b>3</b>
<b>PHYSICAL HAZARD</b>		<b>1</b>
<b>PERSONAL PROTECTION</b>		<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.