



GHS SAFETY DATA SHEET (GHS)

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: Part #180 - Clear Gel Coat

FIBRE GLAST DEVELOPMENTS CORP.
385 CARR DRIVE
BROOKVILLE, OH 45309

TELEPHONE: (937) 833-5200
FAX: (937) 833-6555
**FOR CHEMICAL EMERGENCY
CALL (800) 424-9300 24 HRS.**

RECOMMENDED USE: Standard Composite Manufacturing

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

Warning:

Flammable liquid and vapor. Vapors may travel to a source and flash back. May cause respiratory tract, eye and skin irritation. May be harmful if swallowed.

		HMIS	NFPA 704
Color	Colorless	2	2
Physical State	Liquid	3	3
Odor	Pungent	2	2

Potential Health Effects

Principle routes of exposure

: Inhalation, ingestion, skin and eye contact.

Eye contact

: Contact with eyes may cause irritation with discomfort, tearing or blurring of vision.

Skin contact

: Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

Inhalation

: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. During heating, polymer fume fever may result with symptoms of chest pain or tightness, shortness of breath, cough, malaise, muscle aches, increased heart rate, fever, chills, sweats, nausea and headache. Polymer thermal decomposition products may be absorbed through inhalation and cause target organ effects.

Ingestion

: May cause central nervous system depression or effects. May be harmful if swallowed.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	WEIGHT %
Styrene	100-42-5	30 – 40 %
Polyester Resin		20 – 30 %
Methyl Methacrylate Monomer	80-62-6	5 – 10 %

The specific chemical identities are being withheld as a trade secret (29CFR1910.1200).

SECTION 4 – FIRST AID MEASURES

EYE CONTACT	: Rinse immediately with plenty of water, also under eyelids. Get medical attention if irritation develops.
SKIN CONTACT	: Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If symptoms persist call a physician.
INHALATION	: Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
INGESTION	: Drink plenty of water. Do not induce vomiting. Consult a physician if necessary.
NOTES TO PHYSICIAN	: Treat symptomatically.

SECTION 5 – FIRE-FIGHTING MEASURES

Flash Point (°C): 28 (83° F) **Method:** Tag closed cup.

Flammable limits in air – Lower (%): 1.1

Flammable limits in air – Upper (%): 12.5

Suitable extinguishing media	: Foam. Dry chemical. Carbon dioxide (CO ₂).
Hazardous decomposition products	: Carbon monoxide. Carbon dioxide (CO ₂). Formaldehyde vapors.
Special protective equipment for firefighters	: As in any fire, wear self-contained breathing apparatus (pressure-demand, NIOSH approved or equivalent) and full protective gear.
Unusual hazards	: Flammable. Vapors may form explosive mixture with air. Vapors are heavier than air and may spread along floors. Vapor may travel considerable distance to source of ignition and flash back.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Flammable Liquid. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Remove all sources of ignition. Evacuate area of all unnecessary personnel. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.
- Environmental precautions** : Do not flush with water. Do not flush into surface water. Water pollutant. Water runoff can cause environmental damage. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up** : Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Wear personal protective equipment. Shovel into suitable container for disposal. Dispose of promptly. Clean contaminated surface thoroughly.
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SECTION 7 – HANDLING AND STORAGE

- Handling** : Use only in area provided with appropriate exhaust ventilation. Use explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition. Wear personal protective equipment. Do not take internally. Wash thoroughly after handling.
- Storage** : Store at room temperature in the original container. Keep in a dry, cool place. Keep tightly closed in a dry and cool place.
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SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

Minimize exposure in accordance with good hygiene practice.

Components	OSHA	ACGIH
Styrene	100 ppm TWA 200 ppm Ceiling	40 ppm STEL 20 ppm TWA
Methyl Methacrylate Monomer	100 ppm TWA 410 mg/m ³ TWA	100 ppm STEL 50 ppm TWA

- Engineering measures** : Provide adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.
- Eye protection** : Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles.
- Skin and body protection** : If conditions warrant use butyl rubber apron and boots.
- Hand protection** : Impervious butyl rubber gloves.

Respiratory protection

: In case of insufficient ventilation wear suitable respiratory equipment. Seek professional advice prior to respirator selection and use. NIOSH-approved respirators should be worn where engineering controls and work practices do not reduce exposure to or below the PEL.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Color:	Colorless	Physical State:	Liquid
Odor:	Pungent	Molecular Weight:	No data available
Boiling Point/Range (°C):	100-145 deg C	pH:	No data available
Melting Point/Range (°C):	No data available	Specific Gravity (Water=1):	1.07633
Vapor Pressure:	4.5	Water Solubility:	Negligible
VOC Content (%)	44.3	HAPS Content (%)	43.57

SECTION 10 – STABILITY AND REACTIVITY

Stability: May be unstable resulting in polymerization.

Polymerization: Polymerization can occur when contacted with bases such as amines, e.g. two part epoxy glue.

Hazardous decomposition products: Carbon monoxide. Carbon dioxide (CO2).

Materials to avoid: Incompatible with strong acids and bases. Incompatible with oxidizing agents. Peroxides.

Conditions to avoid: Excessive temperatures.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute toxicity : Information given is based on data on the components and the toxicology of similar products.

Carcinogenic Effects : IARC has classified Styrene as a possible carcinogen (Class 2B). There is currently not sufficient evidence to indicate that Styrene is a human carcinogen. The IARC 2B classification is based on animal data generated from Styrene oxide. Styrene oxide is a metabolite of Styrene.

Component information, if any, is listed below:

Styrene

LD50s and LC50s:	Oral LD50 (Rat) = 1000 mg/kg Inhalation LC50 (Rat) = 11.8 mg/L
OSHA - Select Carcinogens:	Present
NTPS. Carcinogen:	Reasonably Anticipated To Be A Human Carcinogen
IARC - Group 2B:	Listed

Methyl Methacrylate Monomer

LD50s and LC50s:	Inhalation LC50 (Rat) = 400 ppm Inhalation LC50 (Rat) = 4632 ppm Oral LD50 (Rat) = 7872 mg/kg Dermal LD50 (Rabbit) = 5 g/kg
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SECTION 12 – ECOLOGICAL INFORMATION

Aquatic toxicity: Information given is based on data on the components and the ecotoxicology of similar products. No data is available on the product itself.

Styrene

Ecotoxicity - Fish Species Data:

96 h LC50 (Lepomis macrochirus) = 19.03 - 33.53 mg/L static

96 h LC50 (Pimephales promelas) = 3.24 - 4.99 mg/L flow-through

96 h LC50 (Poecilia reticulata) = 58.75 - 95.32 mg/L static

96 h LC50 (Pimephales promelas) = 6.75 - 14.5 mg/L static

Ecotoxicity - Water Flea Data:

48 h EC50 (Daphnia magna) = 3.3 - 7.4 mg/L

Ecotoxicity - Freshwater Algae Data:

96 h EC50 (Pseudokirchneriella subcapitata) = 0.15 - 3.2 mg/L static

72 h EC50 (Pseudokirchneriella subcapitata) = 0.46 - 4.3 mg/L static

96 h EC50 (Pseudokirchneriella subcapitata) = 0.72 mg/L

72 h EC50 (Pseudokirchneriella subcapitata) = 1.4 mg/L

Methyl Methacrylate Monomer

Ecotoxicity - Fish Species Data:

96 h LC50 (Pimephales promelas) = 125.5 - 190.7 mg/L static

96 h LC50 (Lepomis macrochirus) = 153.9 - 341.8 mg/L static

96 h LC50 (Lepomis macrochirus) = 170 - 206 mg/L flow-through

96 h LC50 (Pimephales promelas) = 243 - 275 mg/L flow-through

96 h LC50 (Poecilia reticulata) = 326.4 - 426.9 mg/L static

96 h LC50 (Oncorhynchus mykiss) = 79 mg/L flow-through

96 h LC50 (Oncorhynchus mykiss) = 79 mg/L static

Ecotoxicity - Water Flea Data:

48 h EC50 (Daphnia magna) = 69 mg/L

Ecotoxicity - Freshwater Algae Data:

96 h EC50 (Pseudokirchneriella subcapitata) = 170 mg/L

Persistence and degradability : Not determined.

SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste from residues/
unused products** : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14 – TRANSPORT INFORMATION

DOT (U.S.)

UN/ID No:	UN1866
Proper shipping name:	Resin solution (Contains Styrene Monomer, Inhibited)
U.S. DOT - Hazard Class:	3
Packing group:	III
ERG No:	127

TDG (Canada)

Proper shipping name:	Resin solution (Contains Styrene Monomer, Inhibited)
Packing group:	III

SECTION 15 – REGULATORY INFORMATION

U.S. Regulations:

TSCA

: Not subject to TSCA 12(b) Export Notification

SARA 313:

Components	U.S. – CERCLA/SARA – Section 313 – Emission Reporting
Styrene (30 – 40%)	0.1% de minimis concentration
Methyl Methacrylate Monomer (5-10%)	1.0% de minimis concentration

State Regulations

This product or its ingredients have been evaluated for New Jersey, Pennsylvania, and California Prop 65 supplier notification requirements. Substances that are subject to notification requirements, if any, are listed below.

Components	PARTK
Styrene	Listed (PARTK)
Methyl Methacrylate Monomer	Listed (PARTK)

Components	NJRTK
Styrene	Listed (NJRTK)
Polyester Resin	Listed (NJRTK)
Methyl Methacrylate Monomer	Listed (NJRTK)

Components	State Regulation – CA Prop65
Ethylbenzene	Carcinogen
Cobalt Oxide (CoO)	Carcinogen

Canadian WHMIS

WHMIS hazard class:

B2 Flammable liquid D2A Very toxic materials D2B Toxic materials

Canadian Ingredient Disclosure List (IDL):

Components	Canada – WHMIS Ingredient Disclosure
Styrene	0.1
Methyl Methacrylate Monomer	1

International Inventories

TSCA 8(b):

Canadian DSL/NDSL list

EC-No.

Philippines (PICCS):

Japan (ENCS):

Korea (KECL):

China (IECS):

Australia (AICS):

New Zealand (NZIoC):

Listed or exempt.

One or more ingredient(s) are not listed on the DSL or NDSL list.

One or more ingredient(s) are not on the EINECS list.

One or more ingredient(s) are not on the PICCS list.

One or more ingredient(s) are not on the ENCS list.

One or more ingredient(s) are not on the KECL list.

One or more ingredient(s) are not on the IECS list.

One or more ingredient(s) are not on the AICS list.

One or more ingredient(s) are not on the NZIoC list.

SECTION 16 – OTHER INFORMATION

The information accumulated herein is believed to be accurate, but is not warranted to be whether originating with Fibre Glast Developments or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.