FIBRE GLAST DEVELOPMENTS CORP.
385 CARR DRIVE
BROOKVILLE, OH 45309
REV 06/11

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

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: PART #90, Isophthalic Polyester

SECTION 2 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
Appearance: liquid, amber
WARNING!
Flammable liquid and vapor may affect the central nervous system causing dizziness, headache or nausea. May be harmful if inhaled. May cause eye, skin and respiratory tract irritation. Prolonged or repeated contact may dry skin cause irritation and burns.

POTENTIAL HEALTH EFFECTS

ROUTES OF EXPOSURE: Inhalation, skin absorption, skin contact, eye contact, ingestion

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

SKIN: Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

INGESTION: Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

INHALATION: Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be

harmful. Symptoms usually occur at air concentrations below the recommended exposure limits, if applicable (see Section 8).

AGGRAVATED MEDICAL CONDITIONS: Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material; respiratory tract, skin, lung (for example, asthma-like conditions), liver, male reproductive system, auditory system.

SYMPTOMS: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, loss of coordination, confusion, liver damage.

TARGET ORGANS: Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible kidney effects, effects on hearing, respiratory tract damage (nose, throat, and airways), testis damage and liver damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: mild effects on color vision, effects on hearing, respiratory tract damage (nose, throat, and airways), central nervous system effects.

CARCINOGENICITY: There was no increase in rats exposed to styrene by inhalation. However, there was an increase in lung cancer in styrene-exposed mice. The relevance of the mouse lung cancer to humans is uncertain. Styrene did not cause cancer in mice in studies in which the chemical was placed in the stomachs through a feeding tube, or in a study in which styrene was given by injection. Epidemiological studies do not provide a basis for concluding that styrene causes cancer. Styrene is listed as a carcinogen by the International Agency for Research on Cancer (IARC).

REPRODUCTIVE HAZARD: This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

OTHER INFORMATION: Styrene readily reacts with low concentrations of halogens (for example, fluorine, chlorine, bromine, or iodine) to form a tear-producing substance.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
POLYESTER RESIN		>=50-<60%
STYRENE	100-42-5	>=50-<60%

SECTION 4 – FIRST AID MEASURES

GENERAL INFORMATION

EYES: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; 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: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

INHALATION: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

NOTE TO PHYSICIANS: Hazards: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (see Section 2 – Swallowing) when deciding whether to induce vomiting.
Treatment: No information available.

SECTION 5 – FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: water mist, carbon dioxide (CO2), Dry chemical

HAZARDOUS COMBUSTION PRODUCTS: May form:, carbon dioxide and carbon monoxide, various hydrocarbons.

PRECAUTIONS FOR FIRE-FIGHTING: Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations near the material handling point. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container will water, if exposed to fire.

NFPA Flammable and Combustible Liquids Classification

Flammable Liquid Class IC

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean container for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to container for disposal.

ENVIRONMENTAL PRECAUTIONS: No Data

METHODS OF CLEANING UP: Absorb liquid on vermiculite, floor absorbent or other absorbent material and transfer to hood.

SECTION 7 – HANDLING AND STORAGE

HANLDING: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed, precautions during use: avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or usage of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

STORAGE: Store in closed containers in a dry, well-ventilated area. Do not store near extreme heat, open flame, or sources of ignition.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES

STYRENE	**100-42-5**	
ACGIH	Time weighted average	20 ppm
ACGIH	Short term exposure	40 ppm

NIOSH (REL):	Recommended exposure limit	50 ppm
NIOSH (REL):	Recommended exposure limit	215 mg/m3
NIOSH	Short term exposure limit	100 ppm
NIOSH	Short term exposure limit	425 mg/m3
OSHA Z2	Time weighted average	100 ppm
OSHA Z2	Ceiling limit value	200 ppm
OSHA Z2	Maximum concentration	600 ppm

GENERAL ADVICE: These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

EXPOSURE CONTROLS: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s); OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm workplace limit on styrene. Members of the Styrene Information and Research Council (SIRC), Composites Institute (CI), Composite Fabricators Association (CFA), International Cast Polymers Association (ICPA) and National Marine Manufacturers Association (NMMA) have agreed to use either engineering controls, work practices or respiratory protection to achieve this voluntary limit for styrene.

EYE PROTECTION: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

SKIN AND BODY PROTECTION: Wear resistant gloves such as: polyvinyl alcohol. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

RESPIRATORY PROTECTION: If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form:	No Data
Colour:	Amber

Odour:	Pungent
Boiling Point/range:	295°F/ 145°C @760.00 mmHg
pH:	No Data
Flash Point:	90°F/ 32°C
Evaporation Rate	1 (Ethyl Ether)
Explosion Limits	1.1%(V) 6.1%(V)
Vapor Pressure	NoData
Vapour Density	(>) 1 (Air=1)
Density	1.15 g/cm³ @ 77.00°F/25.00°C 9.15 lb/gal @77.00°F/25.00°C
Solubility	Insoluble in water
Partition coeffeciten (noctanol/water)	No Data
Autoignition temperature	No Data

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: Avoid heat, open flame, and prolonged storage at elevated temperatures, Avoid contact with excessive heat.

INCOMPATIBLE PRODUCTS: Avoid contact with: halogens, strong alkalis, strong mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS: May form: carbon dioxide and carbon monoxide, various hydrocarbons.

HAZARDOUS REACTIONS: Product can undergo hazardous polymerization, Avoid exposure to excessive heat, peroxides and polymerization catalysts.

THERMAL DECOMPOSITION: No data

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY

POLYESTER RESIN	No Data
STYRENE	LD 50: Rat 2650 mg/kg

ACUTE INHALATION TOXICITY

POLYESTER RESIN	No Data
STYRENE	LC 50: Rat 2800 ppm 4h

Acute Dermal Toxicity

POLYESTER RESIN	No Data
STYRENE	No Data

SECTION 12 – ECOLOGICAL INFORMATION

AQUATIC TOXICITY

Acute and Prolonged Toxicity to Fish
No Data
Acute Toxicity to Aquatic Inverterates
No Data
Environmental fate and pathways
No Data

SECTION 13 – DISPOSAL CONSIDERATION

WASTE DISPOSAL METHODS: Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, ocean, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

SECTION 14 – TRANSPORT INFORMATION

IMDG: UN1866, RESIN SOLUTION 3, III
IATA_P: UN1866, RESIN SOLUTION 3, III
IATA_C: UN1866, RESIN SOLUTION 3, III
CFR_ROAD: UN1866, RESIN SOLUTIONS 3, III
CFR_RAIL: UN1866, RESIN SOLUTION 3, III
CFR_INWTR: UN1866, RESIN SOLUTION 3, III
IMDG_INWTR: UN1866, RESIN SOLUTIONS 3, III
INDG_ROAD: UN1866, RESIN SOLUTION 3, III

IMDG_RAIL: UN1866, RESIN SOLUTION 3, III

Dangerous goods descriptions (if indicated above) may not reflect package size quantity, end-use or region-specific exceptions that can be applied. Consult documents fir descriptions that are specific to shipment.

SECTION 15 – REGULATORY INFORMATION

California Prop. 65
WARNING! This product contains a chemical known in the State of California to cause cancer.
STYRENE OXIDE

SARA HAZARD CLASSIFICATION: Fire Hazard, Acute Health Hazard, Chronis Health Hazard, Reactivity Hazard.

SARA 313 COMPONENT(S)

STYRENE	100-42-5	50%

NEW JERSEY RTK Label Info
POLYESTER RESIN

STYRENE	100-42-5

PENNSYLVANIA RTK Label Info
POLYESTER RESIN

STYRENE	100-42-5

Reportable Quantity-Product
US. EPA CERCLA Hazardous Substances (40CFR302) 2000 LBS

Reportable Quantity-Components

POLYESTER RESIN		none
STYRENE	100-42-5	1000 LBS

	HEALTH	FLAMMABILITY	PHYSICAL HAZARDS	INSTABILITY
HMIS	2	3	2	-
NFPA	2	3	-	2

SECTION 16 - COMMENTS

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.