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**FOR CHEMICAL EMERGENCY
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SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: #186 Black Tooling Gel Coat

CAS NUMBER: MIXTURE

HMIS HAZARD RATING: Health: 2* Fire: 3 Reactivity: 2 PPI: J

TRADE NAME: Black Tooling Gel

UN CLASS: 3

UN NUMBER: 1866

UN PACK GROUP: III

SHIPPING NAME: Resin Solution (Contains Styrene Monomer, inhibited)

SECTION 2 – HAZARDOUS INFORMATION

Ingredient Name	CAS #	Percent	TSCA Inv
Styrene Monomer	100-42-5	15-40	Y
Unsaturated Polyester	TRADE SECRET	15-40	Y
Hydrated Alumina (Alumina Trihydrate)	21645-51-2	10-30	Y
Methyl Methacrylate Monomer	80-62-6	1-5	Y
Acetone	67-64-1	1-5	Y
Amorphous Fumed Silica	112945-52-5	1-5	Y
Iron Oxide	12227-89-3	1-5	Y

***All ingredients in this product are listed in the T.S.C.A. Inventory

ADDITIONAL INGREDIENT INFORMATION:

Styrene may contain trace amounts of Benzene (CAS # 71-43-2) as an impurity.

Naphtha-Light Aromatic (CAS # 64742-95-6) contains:
1,2,4-Trimethylbenzene, Xylene and Cumene

SECTION 3 – PHYSICAL DATA

APPERANCE/COLOR:	Black
SOLUBILITY (IN WATER):	Negligible
BOILING POINT:	80 ^o C – 145 ^o C (176 ^o F – 293 ^o F)
VAPOR PRESSURE (MMHG):	4.5 @ 68 ^o F (20 ^o C)
EVAPORATION RATE:	Slower than n-Butyl Acetate
% VOLATILE WEIGHT:	42.93%
% VOLATILE VOLUME:	56.13%
SPECIFIC GRAVITY:	1.18335

SECTION 4 – FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASS:	IC
FLASH POINT:	83 ^o F – 87 ^o F (28.33 ^o C – 30.56 ^o C) Tag Closed Cap
EXPLOSIVE RANGE:	1.1% 12.5%

EXTINGUISHING MEDIA: Foam, Dry Chemical, CO₂

SPECIAL FIREFIGHTING PROCEDURES:

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear protective equipment/clothing. Treat as oil fire. Fight fire from a distance; sealed containers can rupture explosively when heated. Water may be used to keep fire-exposed containers cool until fire is out.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Flammable Liquid. Vapors may form explosive mixture with air. Can polymerize when heated. Combustion can produce toxic gases. Vapors are heavier than air, can travel along the ground or through ventilation systems, and be ignited by sparks, flames or static discharge.

SECTION 5 – HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL:

See Section VIII

EFFECTS OF OVER EXPOSURE:

IRON OXIDE:

ACUTE: May cause mechanical skin and eye irritation.

CHRONIC: Repeated and prolonged inhalation of iron oxide dust is known to cause siderosis. On X-Rays it appears to be a benign pneumoconiosis and is not associated with pulmonary fibrosis or disability unless there is concurrent exposure to other fibrosis-producing materials such as silica. The TLV is set to protect against siderosis.

Styrene & MMA are skin, nose and respiratory tract irritants, and can cause allergic skin rashes. Skin permeation may occur. Both are severe eye irritants and can cause stinging, tearing, blurring of vision, redness and swelling, and possible corneal damage. Inhalation can cause central nervous system (CNS) depression with headache, nausea, dizziness, lung irritation with cough, discomfort & shortness of breath, and other CNS effects.

Methyl Methacrylate (MMA) exposure can cause abnormal kidney function tests and temporary elevation of blood pressure.

High levels of Styrene (1000 pap) can cause anesthetic effects. May be fatal at 10,000 PPM Styrene.

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 on Styrene Oxide. Styrene Oxide is a metabolite of Styrene.

Ingestion causes a burning sensation of the mouth and throat, and gastrointestinal tract irritation.

ACETONE:

High Vapor concentrations may irritate the eyes and mucous membranes of the nose and throat. Severe overexposure (i.e. - >12,000 PPM) can cause CNS depression, including nausea, vomiting, headache, uncoordination and dizziness. Repeated or prolonged skin contact can cause redness and dry, scaly and fissured dermatitis. Eye contact resulting from splashes or high vapor concentration is irritating. When Acetone was absorbed systematically, it caused cataracts in some lab animals. Effects are intoxication if ingested. These acute symptoms may include early emotional instability, impaired motor coordination, nausea, vomiting, drowsiness, stupor and finally coma. 10 to 20 ml has been taken orally without ill effect.

NAPHTHA-LIGHT AROMATIC:

ACUTE:

Inhalation – High concentrations of vapors may be irritating to the respiratory tract. May cause headaches, dizziness, nausea and vomiting. May cause CNS depression (drowsiness, loss of coordination, and fatigue).

Eye and Skin – Repeated or prolonged contact may cause irritation.

Ingestion – Repeated ingestion may irritate the digestive tract.

CHRONIC:

Absorption of ingredients by inhalation and/or repeated skin contact may cause injury to the liver/kidney. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage.

FIRST AID

INHALATION: If inhaled, move individual to fresh air. Make comfortably warm but not hot. Use oxygen or artificial respiration as required. See a physician if irritation is present or persists.

SKIN: In case of contact, remove contaminated clothing. Wash thoroughly with soap and plenty of water for at least 15 minutes. See a physician if irritation is present or persists. Launder contaminated clothing before reuse.

EYE: Immediately flush eyes with plenty of water for at least 15 minutes and get prompt medical attention.

INGESTION: If swallowed, call a physician immediately. Induce vomiting only at the instructions of a physician. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Vomiting can cause aspiration of the liquid into the lungs, which can cause chemical pneumonitis, which can be fatal.

SECTION 6 – STABILITY AND REACTIVITY DATA

STABILITY: This product is stable

HAZARDOUS POLYMERIZATION: Hazardous polymerization may occur

INCOMPATIBILITY:

Iron Oxides are not compatible with hydrazine, calcium hypochlorite, performic acid, and bromine pentafluoride.

Styrene is incompatible with strong acids and bases, peroxides, oxidizers, aluminum chloride and metallic hydrides.

Methyl Methacrylate is incompatible with oxidizing and reducing agents. MMA is a strong solvent and can soften paints and rubber.

ACETONE: Avoid oxidizing agents; ignites when reacted with Potassium tert-Butoxide.

CONDITIONS TO AVOID: Avoid excessive heat and inadvertent addition of catalyst.

HAZARDOUS DECOMPOSITION PRODUCTS: When involved in a fire, burning inorganic pigments may evolve noxious gases which are toxic. These compounds include Carbon Monoxide, Carbon Dioxide, Nitrous Oxide, or Hydrogen Chloride, depending on the pigment type.

Oxides of Carbon; incompletely burned hydrocarbons.

SECTION 7 – SPILL AND LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Styrene Monomer has a Reportable Quantity (RQ) = 1000 lbs.

Methyl Methacrylate has a Reportable Quantity (RQ) = 1000 lbs.

Confine spill. Remove all sources of ignition. Ventilate area and maintain ventilation. Use all described protective measures and equipment. Use absorbent material, such as clay or sand, to collect and contain for salvage and disposal. Prevent runoff from entering drains, sewers or waterways.

Acetone has a reportable Quantity (RQ) = 5000 lbs.

WASTE DISPOSAL METHOD:

Follow all applicable Federal, Provincial, State and Municipal laws, regulations and by-laws. Package in U.N. approved containers and transport to an approved treatment, storage and disposal (TSD) facility. (Also see Section X).

Unused product and cleaned-up material may be RCRA Hazardous Waste (D001, D003).

Cleaned-up materials containing Acetone may be a RCRA Hazardous Waste – D001 (ignitability).

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
Unsaturated Polyester	N/est	N/est	N/est	N/est	N/est
Styrene Monomer	20 PPM	N/est	40 PPM	100 PPM	50 PPM
Methyl Methacrylate Monomer	50 PPM	N/est	100 PPM	N/est	100 PPM
Amorphous Fumed Silica	10 mg/M3	N/est	N/est	N/est	6 mg/m3
Hydrated Alumina (Alumina Trihydrate)	10 mg/M3	N/est	N/est	N/est	15 mg/M3
Acetone	500 PPM	N/est	750 PPM	1000 PPM	750 PPM
Naptha-Light Aromatic	50 PPM	N/est	N/est	N/est	400 PPM
Iron Oxide	10 mg/M3	N/est	N/est	N/est	15 mg/M3

Iron Oxide PEL (as fume) and TLV (as dust and fume).

RESPIRATORY PROTECTION:

Use appropriate NIOSH/MSHA approved respiratory protection when exposure to airborne contaminants may exceed acceptable limits. In emergency situations, or when used in confined spaces, use self-contained breathing apparatus or other air supplied full face respirator.

VENTILATION:

Ventilate to maintain exposure below published exposure limits. Use explosion proof motors and wiring.

PROTECTIVE GLOVES:

Use impervious butyl rubber gloves. Replace as often as needed to maintain protection.

EYE PROTECTION:

Use chemical safety goggles or full face shield.

OTHER PROTECTIVE EQUIPMENT:

Eye wash stations and safety showers should be easily accessible. Where splash can occur, use protective clothing.

SECTION 9 – SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Do not store about 100°F (38°C)

Avoid contact with eyes, skin, and clothing. Avoid breathing vapor, mist or spray. Use with good ventilation. Wash thoroughly after handling. Store in cool, dry area in closed containers away from incompatible materials. Store away from sunlight, heat,

sparks and open flames. Protect containers against physical damage. Do not smoke in work area. Do not store near food or feed.

OTHER PRECAUTIONS:

Since emptied containers retain product residues (vapors, liquid or solid), all hazard precautions listed in the MSDS should be observed. Avoid improper addition of promoter and/or catalyst. Consult product bulletin. Promoters (metal organics such as Cobalt, or Aniline type) and catalyst (organic peroxide type) used with this product, should always be premixed separately into the product.

***** NEVER MIX PROMOTORS AND CATALYST DIRECTLY TOGETHER *****

SECTION 10 – REGULATORY INFORMATION

SARA TITLE III SECTION 313:

This product contains the following chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372:

Ingredient Name	CAS Number	Percent
Styrene Monomer	100-42-5	36.97
Methyl Methacrylate Monomer	80-62-6	3
Cobalt Compound (as Cobalt)	N/A	.02

PROP 65 (BOTH CARCINOGEN AND TERATOGEN)

This product may contain chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

Ingredient Name	CAS Number	Percent
Iron Oxide	12227-89-3	1-5

WARNING: This product contains trace amounts of benzene, arsenic, cadmium, chromium, lead and nickel chemicals known to the State of California to cause cancer.

WARNING: This product contains trace amounts of mercury, beryllium, lead, arsenic, cadmium, benzene, and toluene chemicals known to the State of California to cause birth defects or other reproductive harm.

Although Styrene Monomer is not listed under Prop. 65, trace amounts of Benzene may be present as an impurity. (<0.05%)

Styrene, in the presence of air and high temperature or prolonged exposure to styrene/air mixture to sunlight, can react to form styrene oxide. Styrene oxide is a chemical known to the State of California to cause cancer.

Although Iron Oxides themselves are not listed under Prop. 65, this product may contain trace amounts of chemicals which appear on the State of California's listing of substances known to cause cancer or birth defects or other reproductive harm. (Proposition 65).

MASSACHUSETTS SUBSTANCE LIST:

Styrene (CAS# 100-42-5) is listed.

CERCLA – 40 CFR 302.4

Styrene Monomer has a Reportable Quantity (RQ) = 1000 lbs.
Methyl Methacrylate has a Reportable Quantity (RQ) = 1000 lbs.
Acetone has a Reportable Quantity (RQ) = 5000 lbs.

RCRA – 40 CFR 261:

Wastes containing Styrene Monomer and Methyl Methacrylate (MMA) in a liquid form may exhibit EPA Hazardous Waste Characteristics, D001 (ignitability) and D003 (reactivity).

Wastes containing Acetone may exhibit Hazardous Waste Characteristics, D001 (ignitability).

SECTION 11 - 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.