# GHS SAFETY DATA SHEET (SDS)

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** PART #683 Maxguard™ WG-LEI-5555 WHITE GELCOAT

FIBRE GLAST DEVELOPMENTS CORP.
385 Carr Drive
BROOKVILLE, OH 45309

TELEPHONE: (937) 833-5200
FAX: (937) 833-6555
**FOR CHEMICAL EMERGENCY CALL (801) 629-0667 24 HRS.**

**RECOMMENDED USE:** Industrial Chemical

## SECTION 2 – HAZARDS IDENTIFICATION

**GHS Classification**

| | | |
|---|---|---|
| Flammable liquids | : | Category 3 |
| Combustible Dust | : | |
| Skin irritation | : | Category 2 |
| Eye irritation | : | Category 2A |
| Skin sensitization | : | Category 1 |
| Specific target organ toxicity - single exposure | : | Category 3 (Respiratory system) |
| Specific target organ toxicity - repeated exposure (Inhalation) | : | Category 1 (Auditory system) |

**GHS label elements**

Hazard pictograms :

| | | |
|---|---|---|
| Signal Word | : | Danger |
| Hazard Statements | : | Flammable liquid and vapor.<br>May form combustible dust concentrations in air.<br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye irritation.<br>May cause respiratory irritation.<br>Causes damage to organs (Auditory system) through prolonged or repeated exposure if inhaled. |
| Precautionary Statements | : | **Prevention:**<br>Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.<br>Keep container tightly closed.<br>Ground/bond container and receiving equipment.<br>Use explosion-proof electrical/ ventilating/ lighting/ equipment.<br>Use only non-sparking tools.<br>Take precautionary measures against static discharge.<br>Do not breathe mist or vapors.<br>Wash skin thoroughly after handling.<br>Do not eat, drink or smoke when using this product.<br>Use only outdoors or in a well-ventilated area.<br>Contaminated work clothing must not be allowed out of the workplace.<br>Wear protective gloves/ eye protection/ face protection.<br>Keep dust/air mixtures away from ignition sources.<br>Hazardous polymerization can occur under certain conditions. Avoid excessive heat, direct sunlight, peroxides, and other polymerization catalysts. Store in a cool place and maintain proper concentrations of inhibitor and oxygen.<br>**Response:**<br>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.<br>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.<br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>Get medical advice/ attention if you feel unwell.<br>If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention.<br>Take off contaminated clothing and wash before reuse.<br>In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. |

**Storage:**
Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
**Disposal:**
Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

Static Accumulating liquid
Hazardous polymerization may occur.

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Static Accumulator

Chemical nature : Defatter

**Hazardous components**

| Chemical name | CAS-No. | Classification | Concentration (%) |
|---|---|---|---|
| Styrene | 100-42-5 | Flam. Liq. 3; H226<br>Acute Tox. 4; H332<br>Skin Irrit. 2; H315<br>Eye Irrit. 2A; H319<br>STOT SE 3; H335<br>STOT RE 1; H372<br>Asp. Tox. 1; H304 | 25.3162 |
| TITANIUM DIOXIDE (TIO2) | 13463-67-7 | This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012). | 17.82 |

| | | | |
|---|---|---|---|
| TALC | 14807-96-6 | This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012). | 6.00 |
| ALUMINUM HYDROXIDE | 21645-51-2 | This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012). | 5.0851 |
| METHYLMETHACRYLATE | 80-62-6 | Flam. Liq. 2; H225<br><br>Skin Irrit. 2; H315<br><br>Skin Sens. 1B;<br><br>H317 STOT SE 3;<br><br>H335 | 3.00 |
| SILICA AMORPHOUS (SIO2) | 7631-86-9 | This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012) | 1.5007 |
| SILICA COLLOIDAL AMORPHOUS | 112945-52-5 | This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012). | 1.50 |
| FATTY ACIDS, C14-18 AND C16- 18 UNSATD., MALEATED | 85711-46-2 | Skin Irrit. 2; H315<br><br>Skin Sens. 1;<br><br>H317 | 0.1999 |

## SECTION 4 – FIRST AID MEASURES

| | | |
|---|---|---|
| General advice | : | Move out of dangerous area.<br>Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.<br>Show this safety data sheet to the doctor in attendance.<br>Do not leave the victim unattended. |
| If inhaled | : | Move to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician. |
| In case of skin contact | : | Remove contaminated clothing. If irritation develops, get medical attention.<br>If on skin, rinse well with water.<br>Wash contaminated clothing before re-use.<br>If on clothes, remove clothes. |
| In case of eye contact | : | Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Protect unharmed eye. |
| If swallowed | : | Obtain medical attention.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician. |
| Most important symptoms and effects, both acute and delayed | : | Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:<br>stomach or intestinal upset (nausea, vomiting, diarrhea)<br>irritation (nose, throat, airways)<br>Cough<br>Headache<br>effects on memory<br>loss of appetite<br>Shortness of breath<br>confusion<br>pain in the hands and feet<br>Difficulty in breathing<br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye irritation.<br>May cause respiratory irritation.<br>Causes damage to organs through prolonged or repeated exposure if inhaled. |
| Notes to physician | : | No hazards which require special first aid measures. |

## SECTION 5 – FIRE-FIGHTING MEASURES

| | | |
|---|---|---|
| Suitable extinguishing media | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Water<br>spray<br>Foam<br>Alcohol-resistant foam<br>Carbon dioxide (CO2)<br>Dry chemical |
| Unsuitable extinguishing media | : | High volume water jet |
| Specific hazards during firefighting | : | Organic dusts at sufficient concentration can form explosive mixtures in air.<br>Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.<br>Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.<br>Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : | Carbon dioxide (CO2)<br>Carbon monoxide<br>Hydrocarbons<br>Metal oxides<br>Burning produces noxious and toxic fumes. |
| Specific extinguishing methods | : | Product is compatible with standard fire-fighting agents. |
| Further information | : | Do not use a solid water stream as it may scatter and spread fire.<br>Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.<br>Use a water spray to cool fully closed containers.<br><br>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 with water, if exposed to fire. |

| | | |
|---|---|---|
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus. |

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Evacuate personnel to safe areas.<br>Remove all sources of ignition.<br>Use personal protective equipment.<br>Ensure adequate ventilation.<br>Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.<br>Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. |
| Environmental precautions | : | Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<br>If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : | Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). |
| Other information | : | Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapours/mists with a water spray jet. |

## SECTION 7 - HANDLING AND STORAGE

| | | |
|---|---|---|
| Advice on protection against fire and explosion | : | Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).<br>No sparking tools should be used.<br>Keep away from open flames, hot surfaces and sources of ignition.<br>Use only explosion-proof equipment. |

Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use 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.

Advice on safe handling : Open drum carefully as content may be under pressure. Avoid formation of aerosol.
Provide sufficient air exchange and/or exhaust in work rooms. Do not breathe vapours/dust.
Do not smoke.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Container hazardous when empty.
Take precautionary measures against static discharges. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
Secondary operations, such as grinding and sanding, may produce dust.
Maintain good housekeeping. Do not permit dust layers to
accumulate, for example, on floors, ledges, and equipment, in order to avoid any potential for dust explosion hazards.

For further guidance on prevention of dust explosions, refer to National Fire Protection Association (NFPA) 654: "Standard for the Prevention of Fire and Dust Explosions, from the Manufacturing, Processing and Handling of Combustible Particulate Solids".

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label
precautions. No smoking.

Further information on storage stability : No decomposition if stored and applied as directed.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**Components with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| Styrene | 100-42-5 | TWA | 50 ppm 215 mg/m3 | NIOSH REL |
| | | ST | 100 ppm 425 mg/m3 | NIOSH REL |
| | | TWA | 100 ppm | OSHA Z-2 |
| | | CEIL | 200 ppm | OSHA Z-2 |
| | | Peak | 600 ppm | OSHA Z-2 |
| | | TWA | 50 ppm 215 mg/m3 | OSHA P0 |
| | | STEL | 100 ppm 425 mg/m3 | OSHA P0 |
| | | C | 500 ppm | CAL PEL |
| | | PEL | 50 ppm 215 mg/m3 | CAL PEL |
| | | STEL | 100 ppm 425 mg/m3 | CAL PEL |
| | | TWA | 10 ppm | ACGIH |
| | | STEL | 20 ppm | ACGIH |
| TITANIUM DIOXIDE (TIO2) | 13463-67-7 | TWA | 15 mg/m3 total dust | OSHA Z-1 |
| | | TWA | 10 mg/m3 Total dust | OSHA P0 |
| | | PEL | 10 mg/m3 Total dust (Titanium) | CAL PEL |
| | | PEL | 5 mg/m3 respirable dust fraction (Titanium) | CAL PEL |
| | | TWA | 10 mg/m3 (Titanium dioxide) | ACGIH |

| | | | | |
|---|---|---|---|---|
| TALC | 14807-96-6 | TWA | 20 Million particles per cubic foot Dust | OSHA Z-3 |
| | | TWA | 2 mg/m3 respirable dust fraction | OSHA P0 |
| | | TWA | 2 mg/m3 Respirable | NIOSH REL |
| | | PEL | 2 mg/m3 Respirable dust | CAL PEL |
| | | TWA | 0.1 fibres per cubic centimeter | ACGIH |
| | | TWA | 2 mg/m3 Respirable particulate matter | ACGIH |
| ALUMINUM HYDROXIDE | 21645-51-2 | TWA | 1 mg/m3 Respirable particulate matter (Aluminium) | ACGIH |
| METHYLMETHACRYLATE | 80-62-6 | TWA | 50 ppm | ACGIH |
| | | STEL | 100 ppm | ACGIH |
| | | TWA | 100 ppm 410 mg/m3 | NIOSH REL |
| | | TWA | 100 ppm 410 mg/m3 | OSHA Z-1 |
| | | TWA | 100 ppm 410 mg/m3 | OSHA P0 |
| | | PEL | 50 ppm 205 mg/m3 | CAL PEL |
| | | STEL | 100 ppm 410 mg/m3 | CAL PEL |
| SILICA AMORPHOUS (SIO2) | 7631-86-9 | TWA | 20 Million particles per cubic foot Dust (Silica) | OSHA Z-3 |
| | | TWA | 80 mg/m3 / %SiO2 Dust (Silica) | OSHA Z-3 |
| | | TWA | 6 mg/m3 (Silica) | NIOSH REL |

| | | | | |
|---|---|---|---|---|
| | | PEL | 6 mg/m3 | CAL PEL |
| SILICA COLLOIDAL AMORPHOUS | 112945-52-5 | TWA | 20 Million particles per cubic foot Dust (Silica) | OSHA Z-3 |
| | | TWA | 80 mg/m3 / %SiO2 Dust (Silica) | OSHA Z-3 |
| | | TWA | 6 mg/m3 (Silica) | NIOSH REL |
| | | PEL | 6 mg/m3 | CAL PEL |
| ETHYL BENZENE | 100-41-4 | TWA | 20 ppm | ACGIH |
| | | TWA | 100 ppm 435 mg/m3 | NIOSH REL |
| | | ST | 125 ppm 545 mg/m3 | NIOSH REL |
| | | TWA | 100 ppm 435 mg/m3 | OSHA Z-1 |
| | | TWA | 100 ppm 435 mg/m3 | OSHA P0 |

| | | | | |
|---|---|---|---|---|
| | | STEL | 125 ppm<br>545 mg/m3 | OSHA P0 |
| | | PEL | 5 ppm<br>22 mg/m3 | CAL PEL |
| | | STEL | 30 ppm<br>130 mg/m3 | CAL PEL |

**Hazardous components without workplace control parameters**

| Components | CAS-No. |
|---|---|
| FATTY ACIDS, C14-18 AND C16-18 UNSATD., MALEATED | 85711-46-2 |

**Biological occupational exposure limits**

| Components | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|---|---|---|---|---|---|---|
| Styrene | 100-42-5 | Mandelic acid plus phenylglyoxylic acid | Urine | End of shift (As soon as possible after exposure ceases) | 400 mg/g Creatinine | ZUS_ACGIHB |
| Remarks: | Nonspecific | | | | | |
| | | Styrene | Urine | End of shift (As soon as possible after exposure ceases) | 40 µg/l | ZUS_ACGIHB |

**Engineering measures** : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.
Provide appropriate exhaust ventilation at places where dust is formed.

**Personal protective equipment**

| | | |
|---|---|---|
| Respiratory protection | : | In the case of vapour formation use a respirator with an approved filter. |
| Filter type | : | Organic vapour type |

Hand protection

| | | |
|---|---|---|
| Material | : | Laminate (AlphaTec® 02-100 (formerly Barrier®) or Silvershield®) |
| Break through time | : | 480 min |
| Glove thickness | : | > 0.5 mm |
| Remarks | : | The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. |
| Eye protection | : | Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist. |
| Skin and body protection | : | Wear as appropriate:<br>Impervious clothing Safety shoes<br>Flame-resistant clothing<br>Choose body protection according to the amount and concentration of the dangerous substance at the work place. Discard gloves that show tears, pinholes, or signs of wear.<br><br>Wear resistant gloves (consult your safety equipment supplier). |
| Hygiene measures | : | Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke. |

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Physical state | : | liquid |
| Colour | : | white |
| Odour | : | solvent-like |
| Odour Threshold | : | No data available |
| pH | : | No data available |
| Melting point/freezing point | : | No data available |

| | | |
|---|---|---|
| Relative vapour density | : | No data available |
| Relative density | : | No data available |
| Density | : | 1.078 g/cm3 (25 °C) |
| Solubility(ies) | | |
| Water solubitliy | : | insoluble |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Thermal decomposition | : | No data available |
| Viscosity | | |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | > 20.5 mm2/s (40 °C) |
| Oxidizing properties | : | No data available |

## SECTION 10 – STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | No decomposition if stored and applied as directed. |
| Chemical stability | : | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | : | Hazardous polymerisation may occur.<br>Vapours may form explosive mixture with air.<br>This product does not present a dust explosion hazard as delivered. However, fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard. |
| Conditions to avoid | : | Exposure to air.<br>Exposure to sunlight.<br>Exposure to moisture |

Heat, flames and sparks.

| | | |
|---|---|---|
| Incompatible materials | : | Acids<br>aluminum<br>aluminum<br>chloride<br>Amines<br>Bases<br>Copper<br>Copper<br>alloys<br>fluorides<br>halogens<br>iron<br>chloride<br>metal salts<br>nitrates<br>reducing<br>agents<br>strong<br>bases<br>Strong oxidizing<br>agents UV light.<br>Peroxides |
| Hazardous decomposition products | | Carbon monoxide<br>Carbon dioxide (CO2)<br>Hydrocarbons<br>Acetone<br>aluminum oxides |

## SECTION 11 – TOXICOLOGY INFORMATION

| | | |
|---|---|---|
| Information on likely routes of exposure | : | Inhalation<br>Skin contact<br>Eye Contact<br>Ingestion |

**Acute toxicity**

Not classified based on available information.

**Components:**

Styrene**:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 2,000 mg/kg |
| Acute inhalation toxicity | : | LC50 (Rat): 11.8 mg/l, 2770 ppm Exposure time: 4 h<br>Test atmosphere: vapour |
| | | No observed adverse effect level (Humans): 100 ppm<br>Exposure time: 7 h<br>Test atmosphere: vapour |

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

TITANIUM DIOXIDE (TIO2):
Acute oral toxicity : LD50 (Rat): > 24,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 6.82 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: Not classified as acutely toxic by inhalation under GHS.

Acute dermal toxicity : LD50 (Rabbit): > 10,000 mg/kg

TALC:
Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 423

ALUMINUM HYDROXIDE:
Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

LD50 (Rat, female): > 2,000 mg/kg Method: OECD Test Guideline 423 GLP: yes
Assessment: No adverse effect has been observed in acute oral toxicity tests.

Acute inhalation toxicity : LC50 (Rat): > 2.3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: Not classified as acutely toxic by inhalation under GHS.
Remarks: Information given is based on data obtained from similar substances.

METHYLMETHACRYLATE:
Acute oral toxicity : LD50 (Rat): 7,800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 29.8 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 5,000

mg/kg

SILICA AMORPHOUS (SIO2)**:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 5,000 mg/kg<br>Method: OECD Test Guideline 401<br>GLP: yes |
| Acute inhalation toxicity | : | LC50 (Rat): > 2.08 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: OECD Test Guideline 403 GLP: yes<br>Assessment: No adverse effect has been observed in acute inhalation toxicity tests. |
| Acute dermal toxicity | : | LD50 (Rabbit): > 5,000 mg/kg |

SILICA COLLOIDAL AMORPHOUS**:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 5,000 mg/kg |
| Acute dermal toxicity | : | LD50 (Rabbit): > 2,000 mg/kg<br>Assessment: Not classified as acutely toxic by dermal absorption under GHS. |

FATTY ACIDS, C14-18 AND C16-18 UNSATD., MALEATED**:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 2,000 mg/kg<br>Method: OECD Test Guideline 401 |

**Skin corrosion/irritation**

Causes skin irritation.

**Product:**

Result: Repeated exposure may cause skin dryness or cracking.

Remarks: Individuals with direct skin contact with methyl methacrylate have experienced temporary loss of feeling and mild nerve damage in the fingers.

Remarks: May cause skin irritation and/or dermatitis.

**Components:**

Styrene**:**

Species:

Rabbit

Result: Irritating to skin.

Species: human skin

Result: No skin irritation

TITANIUM DIOXIDE (TIO2)**:**

Result: Slight, transient irritation

TALC**:**
Species: reconstructed human epidermis (RhE)
Result: No skin irritation

ALUMINUM HYDROXIDE**:**
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

METHYLMETHACRYLATE**:**
Result: Irritating to skin.

SILICA AMORPHOUS (SIO2)**:**
Result: Slight, transient irritation

SILICA COLLOIDAL AMORPHOUS**:**
Result: No skin irritation

FATTY ACIDS, C14-18 AND C16-18 UNSATD., MALEATED**:**
Species: reconstructed human epidermis (RhE)
Method: OECD Test Guideline 439
Result: Irritating to skin.

### Serious eye damage/eye irritation

Causes serious eye irritation.

**Product:**

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

**Components:**

Styrene**:**
Result: Irritating to eyes.
Remarks: Vapour during processing may be irritating to the respiratory tract and to the eyes.

TITANIUM DIOXIDE (TIO2)**:**
Result: Slight, transient irritation

TALC**:**
Species: Rabbit
Result: Slight, transient irritation
Method: OECD Test Guideline 405

ALUMINUM HYDROXIDE**:**
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405
GLP: yes

METHYLMETHACRYLATE**:**
Result: Slight, transient irritation

SILICA AMORPHOUS (SIO2)**:**
Result: Slight, transient irritation

SILICA COLLOIDAL AMORPHOUS**:**
Result: No eye irritation

FATTY ACIDS, C14-18 AND C16-18 UNSATD., MALEATED**:**
Species: Rabbit
Result: No skin irritation
Method: OECD Test Guideline 405

### Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.
Respiratory sensitisation: Not classified based on available information.

**Components:**

Styrene**:**
Exposure routes: Skin contact
Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Result: negative

Exposure routes: inhalation
(vapour) Species: Humans
Assessment: Does not cause respiratory sensitisation. Result: negative

TALC**:**
Test Type: Maximisation Test
Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals. Method: OECD Test Guideline 406

ALUMINUM HYDROXIDE**:**
Test Type: Maximisation Test
Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals. Method: OECD Test Guideline 406
GLP: yes

METHYLMETHACRYLATE**:**
Test Type: Local lymph node assay
Species: Mouse
Method: OECD Test Guideline 429
Result: The product is a skin sensitiser, sub-category 1B.

FATTY ACIDS, C14-18 AND C16-18 UNSATD., MALEATED**:**
Test Type: Local lymph node assay
Species: Mouse
Assessment: May cause sensitisation by skin contact.
Method: OECD Test Guideline 429

Germ cell mutagenicity
Not classified based on available information.

**Components:**

TALC**:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: In vitro gene mutation study in bacteria Test species: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative |
| | : | Test Type: In vitro gene mutation study in bacteria Test species: Saccharomyces cerevisiae<br>Metabolic activation: with and without metabolic activation Result: negative |
| Genotoxicity in vivo | : | Test Type: dominant lethal test Test species: Rat (male)<br>Cell type: Bone marrow<br>Result: negative |

FATTY ACIDS, C14-18 AND C16-18 UNSATD., MALEATED**:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Ames test<br>Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471<br>Result: negative |

**Carcinogenicity**

Not classified based on available information.

**Product:**

| | | |
|---|---|---|
| Carcinogenicity - Assessment | : | Styrene has been tested for carcinogenicity in rats and mice. Styrene caused lung tumors in mice only. These tumors are not considered to be relevant to humans. |

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

May cause respiratory irritation.

**Components:**

Styrene**:**
Assessment: May cause respiratory irritation.

METHYLMETHACRYLATE**:**
Target Organs: Upper respiratory tract
Assessment: May cause respiratory irritation.

**STOT - repeated exposure**

Causes damage to organs (Auditory system) through prolonged or repeated exposure if inhaled.

**Components:**

Styrene**:**
Exposure routes: inhalation (vapour) Target Organs: Auditory system
Assessment: Causes damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity**

**Components:**

Styrene**:**
Species: Human 85 mg/m3

Application Route: inhalation (vapour)

Species: Human 615 mg/kg
Application Route: Skin contact

**Aspiration toxicity**

Not classified based on available information.

**Components:**

Styrene**:**
May be fatal if swallowed and enters airways.

Further information Product:
Remarks: Solvents may degrease the skin.

**Carcinogenicity:**

| | | |
|---|---|---|
| **IARC** | Group 2A: Probably carcinogenic to humans | |
| | Styrene | 100-42-5 |
| | Group 2B: Possibly carcinogenic to humans | |
| | TITANIUM DIOXIDE (TIO2) | 13463-67-7 |
| | ETHYL BENZENE | 100-41-4 |
| **OSHA** | No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens. | |
| **NTP** | Reasonably anticipated to be a human carcinogen | |
| | Styrene | 100-42-5 |

## SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity Product:

Ecotoxicology Assessment

| | | |
|---|---|---|
| Short-term (acute) aquatic hazard | : | Acute aquatic toxicity Category 2; Toxic to aquatic life. |
| Long-term (chronic) aquatic hazard | : | Chronic aquatic toxicity Category 3; Harmful to aquatic life with long lasting effects. |

**Components:**

Styrene:

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): 4.02 mg/l<br>Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 4.7 mg/l<br>Exposure time: 48 h |
| Toxicity to algae | : | ErC50 (Pseudokirchneriella subcapitata (green algae)): 4.9 mg/l<br>Exposure time: 72 h |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 1.01 mg/l Exposure time: 21 d |
| Toxicity to bacteria | : | EC50 (activated sludge): ca. 500 mg/l<br>Exposure time: 0.5 h |
| Toxicity to soil dwelling organisms | : | NOEC (Eisenia fetida (earthworms)): 34 mg/kg Exposure time: 14 d<br>Method: OECD Test Guideline 207 |

TITANIUM DIOXIDE (TIO2):

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 48 h<br>Test Type: static test |

METHYLMETHACRYLATE:

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): 130 mg/l Exposure time: 96 h<br>Method: static test |
| | | LC50 (Oncorhynchus mykiss (rainbow trout)): > 79 mg/l Exposure time: 96 h<br>Test Type: flow-through test |

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 69 mg/l<br>Exposure time: 48 h<br>Test Type: flow-through test |
| Toxicity to algae | : | EC50 (Pseudokirchneriella subcapitata (algae)): > 110 mg/l Exposure time: 72 h<br>Test Type: static test |
| Toxicity to fish (Chronic toxicity) | : | LC50 (Danio rerio (zebra fish)): 33.7 mg/l Exposure time: 35 d<br>Test Type: flow-through test<br>Method: OECD Test Guideline 210 |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 37 mg/l Exposure time: 21 d<br>Test Type: flow-through test<br>Method: OECD Test Guideline 211 |

SILICA AMORPHOUS (SIO2)**:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Danio rerio (zebra fish)): > 10,000 mg/l Exposure time: 96 h<br>Method: OECD Test Guideline 203<br>GLP: yes |

SILICA COLLOIDAL AMORPHOUS**:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Brachydanio rerio (zebrafish)): > 10,000 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203 |

FATTY ACIDS, C14-18 AND C16-18 UNSATD., MALEATED**:**

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | EL50 (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h<br>Test Type: semi-static test<br>Test substance: WAF<br>Method: OECD Test Guideline 202 |
| Toxicity to algae | : | EL50 (Pseudokirchneriella subcapitata (microalgae)): > 100 mg/l<br>End point: Growth inhibition Exposure time: 72 h<br>Test Type: static test<br>Test substance: WAF<br>Method: OECD Test Guideline 201 |

Persistence and degradability Components:

Styrene:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 10 d

TALC:

Biodegradability : Result: The methods for determining biodegradability are not
applicable to inorganic substances.

METHYLMETHACRYLATE:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 94.3 %
Exposure time: 14 d
Method: OECD Test Guideline 301C

SILICA COLLOIDAL AMORPHOUS:

Biodegradability : Result: The methods for determining biodegradability are not
applicable to inorganic substances.

FATTY ACIDS, C14-18 AND C16-18 UNSATD., MALEATED:

Biodegradability : Result: Not readily biodegradable
Biodegradation 40 %
Exposure time 28 d
Method: OECD Test Guideline 301F

:

No data available

**Bioaccumulative potential**

**Components:**

Styrene:

Bioaccumulation : Bioconcentration factor (BCF): < 100

Partition coefficient: n-octanol/water : log Pow: 2.96 (25 °C)

METHYLMETHACRYLATE:

Partition coefficient: n-octanol/water : log Pow: 1.38

FATTY ACIDS, C14-18 AND C16-18 UNSATD., MALEATED:

Partition coefficient: n-octanol/water : log Pow: < 1 (25 °C)

No data available

**Mobility in soil**

**Components:** Styrene**:**

| | | |
|---|---|---|
| Distribution among environmental compartments | : | Koc: 352 |

No data available **Other adverse effects**

**Product:**

| | | |
|---|---|---|
| Additional ecological information | : | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life., Harmful to aquatic life with long lasting effects. |

**Components:**

Styrene**:**

| | | |
|---|---|---|
| Results of PBT and vPvB assessment | : | This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB). |

METHYLMETHACRYLATE**:**

| | | |
|---|---|---|
| Results of PBT and vPvB assessment | : | This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB). |

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| General advice | : | The product should not be allowed to enter drains, water courses or the soil.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Send to a licensed waste management company.<br><br>Dispose of in accordance with all applicable local, state and federal regulations. |

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

## SECTION 14 - TRANSPORT INFORMATION

**International transport regulations REGULATION**

| ID NUMBER | PROPER SHIPPING NAME | *HAZARD CLASS | SUBSIDIARY HAZARDS | PACKING GROUP | MARINE POLLUTANT / LTD. QTY. |
|---|---|---|---|---|---|

**MX_DG**

| | | | | | |
|---|---|---|---|---|---|
| UN | 1866 | RESIN SOLUTION | 3 | III | |

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

| | | | | | |
|---|---|---|---|---|---|
| UN | 1866 | Resin solution | 3 | III | |

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

| | | | | | |
|---|---|---|---|---|---|
| UN | 1866 | Resin solution | 3 | III | |

**INTERNATIONAL MARITIME DANGEROUS GOODS**

| | | | | | |
|---|---|---|---|---|---|
| UN | 1866 | RESIN SOLUTION | 3 | III | |

**TDG_INWT_C**

| | | | | | |
|---|---|---|---|---|---|
| UN | 1866 | RESIN SOLUTION | 3 | III | |

**TDG_RAIL_C**

| | | | | | |
|---|---|---|---|---|---|
| UN | 1866 | RESIN SOLUTION | 3 | III | |

**TDG_ROAD_C**

| | | | | | |
|---|---|---|---|---|---|
| UN | 1866 | RESIN SOLUTION | 3 | III | |

**U.S. DOT - INLAND WATERWAYS**

| | | | | | |
|---|---|---|---|---|---|
| UN | 1866 | Resin solution | 3 | III | |

**CFR_RAIL_C**

| | | | | |
|---|---|---|---|---|
| UN | 1866 | Resin solution | 3 | III |
| | | | | |

**U.S. DOT - ROAD**

| | | | | |
|---|---|---|---|---|
| UN | 1866 | Resin solution | 3 | III |
| | | | | |

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

| | | |
|---|---|---|
| Marine pollutant | | no |

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

## SECTION 15 – REGULATORY INFORMATION

**TSCA list**
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**EPCRA - Emergency Planning and Community**

**Right-to-Know Act CERCLA Reportable Quantity**

| Components | CAS-No. | Component | Calculated product |
|---|---|---|---|
| | | (lbs) | (lbs) |
| Styrene | 100-42-5 | 1000 | 3950 |

**SARA 304 Extremely Hazardous Substances Reportable Quantity**
This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Flammable (gases, aerosols, liquids, or solids)
Combustible Dust
Hazard not otherwise classified (physical hazards) Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitisation
Specific target organ toxicity (single or repeated exposure)

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313**

The following components are subject to reporting levels established by SARA Title III, Section 313:
Styrene 100-42-5 25.31 %

| | | |
|---|---|---|
| METHYLMETHACRYLATE | 80-62-6 | 3.00 % |
| ETHYL BENZENE | 100-41-4 | 0.15 % |

**California Prop. 65**

WARNING: This product can expose you to chemicals including styrene, Titanium dioxide, ethylbenzene, Quartz, cumene, benzene, 1,4-dioxane, formaldehyde, acetaldehyde, ethylene oxide, methyl isobutyl ketone, naphthalene, α-methylstyrene, which is/are known to the State of California to cause cancer, and toluene, benzene, ethylene oxide, methyl isobutyl ketone, methanol, chloromethane, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

**The components of this product are reported in the following inventories:**

| | | |
|---|---|---|
| TCSI | : | Not in compliance with the inventory |
| TSCA | : | On or in compliance with the active portion of the TSCA inventory |
| AIIC | : | Not in compliance with the inventory |
| DSL | : | On the inventory, or in compliance with the inventory |
| ENCS | : | Not in compliance with the inventory |
| KECI | : | Not in compliance with the inventory |
| PICCS | : | Not in compliance with the inventory |
| IECSC | : | On the inventory, or in compliance with the inventory |
| NZIoC | : | Not in compliance with the inventory |

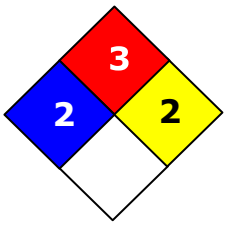
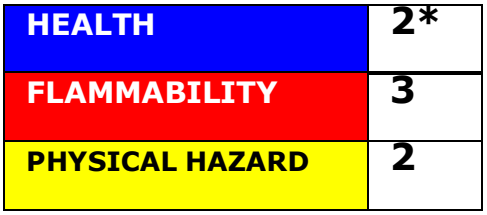
**Inventories**

AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

## SECTION 16 – OTHER INFORMATION

**Revision Date**

**2/13/2023**

| NFPA: | HMIS III: |
|---|---|
| Flammability   Special |   0 = not significant, 1 =Slight,<br>2 = Moderate, 3 = High<br>4 = Extreme, * = Chronic |

**NFPA Flammable and Combustible Liquids Classification**

Flammable Liquid Class IC

**Full text of H-Statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapor |
| H226 | Flammable liquid and vapor. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H372 | Causes damage to organs through prolonged or repeated exposure if inhaled. |

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