



GHS SAFETY DATA SHEET (SDS)

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: Part #223 Woven Roving

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

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

Recommended Use: Industrial use, reinforcement of composite material

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

OSHA regulatory Status

: Continuous Filament Glass Fiber (CFGF) Products are articles Articles which meet the definition of 29 CFR 1910.1200 (b)(6)(v) (a manufactured item other than a fluid or a particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has an end use function(s) dependant in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g. minute or trace amounts of a hazardous chemical (as determined in paragraph (d) of this section), and does not pose a physical hazard or health risk to employees) are not regulated by OSHA HazCom Standard

WHMIS Regulatory Status

: Continuous Filament Glass Fiber (CFGF) Products are manufactured articles Manufactured articles which meet the definition of the Canadian Hazardous Products Act (any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an individual to be exposed to a hazardous product) are not regulated by the Canadian Hazardous Products Regulation SOR/2015-17

Other Information

: As manufactured continuous filament glass fibers are non-respirable. May cause temporary skin and mucous membranes itching due to mechanical abrasion effect of fibers. Under normal conditions of use, these products may release dust and non-respirable fibers (Particles Not Otherwise Regulated). Under severe process conditions (e.g. shredding, crushing), these products may release very small amount of respirable particulate, some of which may be fiber-like in terms of l/d ratio (so-called "shards").

SECTION 3 - HAZARDS IDENTIFICATION

Fabrics and woven rovings product are manufactured by weaving, stitching or powder-bonding different CFGF products, namely direct rovings, assembled rovings, chopped strands mat, continuous filament mat. Glass or polyester yarn are used for stitching. Some products include a polypropylene core.

SECTION 4 – FIRST AID MEASURES

Eye Contact	: DO NOT rub or scratch eyes Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes If eye irritation persists: Get medical advice/attention
Skin Contact	: Wash off immediately with soap and plenty of cold water DO NOT use warm water because this will open up the pores of the skin, which will cause further penetration of the fibers DO NOT rub or scratch affected area If skin irritation persists, call a physician
Inhalation	: Move to fresh air. If symptoms persist, call a physician.
Ingestion	: Accidental ingestion of this material is unlikely. rinse mouth with water and drink water to remove fibers from the throat If symptoms persist, call a physician
Note to Physicians	: Treat symptomatically.

SECTION 5 – FIRE-FIGHTING MEASURES

Flammable Properties	: Continuous Filament Glass Fiber products are not flammable, are incombustible and do not support combustion. Only the Sizing is combustible and could release small quantities of undetermined hazardous substances in case of major and prolonged heat or fire
Suitable Extinguishing Media	: Use CO2, dry chemical, or foam Water spray or fog
Protective Equipment and precautions for firefighters	: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions	: Avoid contact with skin and eyes Avoid creating dust Use personal protection recommended in section 8
Methods for cleaning up	: Avoid dry sweeping. Avoid creating dust Take up mechanically, placing in appropriate containers for disposal Use an industrial vacuum cleaner with a high efficiency filter to clean up dust and fiber contamination.

After cleaning, flush away traces with water.

SECTION 7 – HANDLING AND STORAGE

- Handling** : Avoid contact with skin, eyes, or clothing
Prevent and/or minimize dust formation
- Storage** : Keep product in its packaging until use to minimize potential dust generation.
- Incompatible materials** : none known
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SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

As manufactured continuous filament glass fibers are not respirable. Under normal conditions of use, these products may release dust and non-respirable fibers (Particles Not Otherwise Regulated). Under severe process conditions (e.g. shredding, crushing), they may release very small amount of respirable particulate, some of which may be glass shards (see section 11).

Chemical Name	OSHA PEL	ACGIH TLV	Ontario TWA	NIOSH REL
Fiberglass (continuous filament, non-respirable) 65997-17-3	-	TWA: 1 f/cc (Respirable) 5 mg/m ³ (Inhalable)	TWA: 1 f/cc (Respirable) 5 mg/m ³ (Inhalable)	-

- OSHA PEL** :TWA for Inert or Nuisance Dust are 5 mg/m³ (Respirable fraction) and 15 mg/m³ (Total dust)
- Ontario** : TWA for Particles (Insoluble or Poorly soluble) Not Otherwise Specified (PNOS) are 3 mg/m³ (Respirable fraction) and 10 mg/m³ (Inhalable fraction)
- Engineering Controls** : Provide local exhaust and/or general ventilation to maintain exposure below regulatory and recommended limits.
Local exhaust ventilation should be provided at areas of cutting, milling or other similar processing to remove airborne dust and fibers

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** : Safety glasses with side-shields (or goggles)
- Skin and Body Protection** : Protective gloves.
Long sleeved shirt and long pants.
- Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations
- General Hygiene Considerations** : Wash hands before breaks and immediately after handling the product
Remove and wash contaminated clothing before re-use.
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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Solid – fiber with diameter larger than 6 micron
Appearance	: Glass fiber yarns
Color	: White to off-white
Odor	: Odorless
Boiling point	: No data available
Melting point	: >800°C
Specific Gravity	: 2.6 (Ref: water = 1)
Solubility	: Insoluble in water
Vapor Density	: No data available
Vapor Pressure	: No data available
Evaporation Rate	: No data available
pH	: No data available
Viscosity	: No data available
Flash Point	: No data available
Auto-Ignition Temperature	: No data available

SECTION 10 –STABILITY AND REACTIVITY

Stability	: Stable under normal conditions
Possibility of Hazardous reactions	: none under normal processing
Hazardous Decomposition Products	: None under normal use conditions Small quantities of undetermined hazardous decomposition products may be released in case of heat exposure or during a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

Product Information	: Continuous filament glass fibers are not respirable according to the World Health Organization (WHO) definition. Respirable fibers have a diameter (d) smaller than 3µm, a length (l) larger than 5µm and a l/d-ratio larger than or equal to 3. Fibers with diameters greater than 3 microns, which is the case for continuous filament glass fiber, do not reach the lower respiratory tract and, therefore have no possibility of causing serious pulmonary disease. Continuous filament glass fibers do not possess cleavage planes which would allow them to split length-wise into fibers with smaller diameters, rather they break across the fiber, resulting in fibers which are of the same diameter as the original fiber with a shorter length and a small amount of dust. Microscopic examination of dust from highly chopped and pulverised glass demonstrated the presence of small amounts of respirable dust particles. Among these respirable particles, some were fiber-like in terms of l/d ratio(so-called “shards”). It can be clearly observed however that they are not regular shaped fibers but irregular shaped particles with fiber-like dimensions. To the best of our knowledge, the exposure levels of these fiber-like dust particles measured at our manufacturing plants are of the order of magnitude between 50 to 1000 below existing applicable limits
ACGIH (American Conference of Governmental Industrial Hygienists)	: Continuous filament glass fibers are classified as A4 - Not Classifiable as a Human Carcinogen
IARC (International Agency for Research on Cancer)	: The International Agency for Research on Cancer (IARC) in June, 1987, and in October, 2001 (see IARC Monographs on the Evaluation of Carcinogenic risks to humans –Man-made Vitreous Fibers – Volume 81), categorized continuous filament fiber glass as not classifiable with

respect to human carcinogenicity (Group 3). The evidence from human as well as animal studies was evaluated by IARC as insufficient to classify continuous filament fiber glass as a confirmed, probable or even possible cancer causing material

NTP (National Toxicology Program) : Continuous filament glass fibers are not listed in the National Toxicology Program (NTP) report on Carcinogens (latest edition)

OSHA (Occupational Safety and Health Administration of the US Department Of Labor) : X - Present

SECTION 12 - ECOLOGICAL INFORMATION

This product is not expected to be hazardous for the environment

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable regional, national and local laws and regulations

SECTION 14 - TRANSPORT INFORMATION

These products are not classified as dangerous goods according to international transport regulations

SECTION 15 – REGULATORY INFORMATION

International Inventories : Continuous filament glass fiber products are articles. Articles are exempted from registration or listing under chemicals inventories like TSCA (USA), DSL/NDSL (CAN), REACH (EU), ENCS (JP), IECSC (CN), KECL (KR), PICCS (PH), AICS (AUS)

California Proposition 65 : This product is not regulated under California Proposition 65

SECTION 16 – OTHER INFORMATION

	HMIS
Health	1
Fire Hazard	0
Reactivity	0
Personal Protection	X

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.