



FIBRE GLAST DEVELOPMENTS CORP.
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**FOR CHEMICAL EMERGENCY
CALL (800) 424-9300 24 HRS.**

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: #38, 1/32 Milled Glass Fibers

SECTION 2 – COMPOSITION AND INGREDIENTS INFORMATION

CAS#	COMPONENT	PERCENT BY WT.
65997-17-3	Fiber Glass (crushed/shredded continuous filament)*	100
	• Non-respirable filament and particulate	>90
	• Respirable Particulate	<10
	• Respirable Particulate with fiber-like dimensions	<0.1

*As manufactured continuous filament glass fibers are not respirable. Continuous filament glass products that are chopped, crushed, or severely mechanically processed during manufacturing or use may contain a very small amount of respirable particulate, some of which may be glass shards. See Section 8 of Material Safety Data Sheet for exposure limit data.

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: glass wool fiber, fibrous glass and nuisance particles.

Component Information/Information on Non-Hazardous Components

No additional information available.

SECTION 3 – HAZARDS IDENTIFICATION

Emergency Overview

No unusual conditions are expected from this product

APPEARANCE AND ODOR: White to gray powder or shredded fiber glass with no odor.

PRIMARY ROUTES OF EXPOSURE: Inhalation, lungs, skin and eye.

POTENTIAL ACUTE HEALTH EFFECTS

Inhalation: Dusts and fibers from this product may cause mechanical irritation of the nose, throat and respiratory tract.

Skin Contact: Dust and fibers from this product may cause temporary mechanical irritation to the skin.

Eye Contact: Dust and fibers from this product may cause temporary mechanical irritation to eyes.

Ingestion: Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Medical Conditions Aggravated by Exposure: Chronic respiratory or skin conditions may temporarily worsen from exposure to this product.

Chronic Conditions: See Section 11 for additional information.

SECTION 4 - FIRST AID MEASURES

Inhalation: If inhaled, move the affected person to fresh air. If irritation persists get medical attention.

Skin Contact: For skin contact, wash with mild soap and cold water. Do not wash with water because this will open up the pores of the skin, which will cause further penetration of the fibers. Use a washcloth to help remove fibers. To avoid further irritation, do not rub or scratch affected areas. Rubbing or scratching may force fibers into the skin. If irritation persists get medical attention.

Never use compressed air to remove fibers from the skin. If fibers are seen penetration from the skin, the fibers can be removed by applying and removing adhesive tape so that the fibers adhere to the tape and are pulled out of the skin.

Eye Contact: Immediately flush eyes with plenty of running water for at least 15 minutes. If irritation persists get medical attention.

Ingestion: Ingestion of this material is unlikely. If it does occur, watch the person for several days to make sure that partial or complete intestinal obstruction does not occur.

Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention if irritation persists.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: None

Flash Point Method: Not determined

Upper Flammability Limit: None

Lower Flammability Limit: None

Flammability Classification: Non-flammable

Extinguishing Media: Dry chemical, foam, carbon dioxide, and water fog.

Unusual Fire & Explosion Hazards: None Known

Fire-Fighting Instructions: Use self-contained breathing apparatus (SCBA) and full bunker turnout gear in a sustained fire.

Hazardous Combustion Products: Primary combustion products are carbon monoxide, hydrogen, carbon dioxide, ammonia and water. Other undetermined compounds could be released in small quantities.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Containment Procedures: This material will settle out of air. If concentrated on land, it can then be scooped up for disposal as non-hazardous waste. This material will sink and disperse along the bottom of waterways and ponds. It cannot easily be removed after it is waterborne; however, the material is non-hazardous in water.

Clean-Up Procedures: Scoop up material and put into a suitable container for disposal as a non-hazardous waste. Do not use compressed air for cleaning.

Response Procedures: Isolate area. Keep unnecessary personnel away.

Special Procedure: None

SECTION 7 - HANDLING AND STORAGE

HANDLING: Keep product in its packaging, as long as practicable to minimize potential dust generation. Keep work areas clean. Avoid unnecessary handling of scrap materials. Wear PPE as described in Section 8.

STORAGE PROCEDURES: No special procedures.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

EXPOSURE GUIDELINES

General Product Information: Follow all applicable exposure limits.

Exposure Limits:

Fiber Glass (crushed/shredded continuous filament) (65997-17-3)

	OSHA PEL (8-hr TWA)	ACGIH TLV (8-hr TWA)
Non-respirable fibers and particle	15 mg/m ³ (total dust) (a)	5 mg/m ³ (inhalable fraction)
Respirable particulate	5 mg/m ³ (respirable dust) (b)	None
Respirable particulate with fiber like Dimensions (glass shards)	None Established	None Established

Ventilation: There is a possibility of high particulate exposure levels when working with this product. At a minimum, local exhaust and/or general dilution ventilation should be provided as necessary to maintain exposures below regulatory and recommended limits. Dust collection systems must be used in transferring operations, cutting or machining or other dust generating processes because of anticipated dust levels. Vacuum or wet-clean up methods should be used.

Personal Protective Equipment

Respiratory Protection: A properly fitted NIOSH approved N 95 series disposable dust respirator such as the 3M model 8210 (model 8271 in high humidity environments) or equivalent must be worn when using this material. Because of the possibility of high particulate levels occurring with this product, it may be necessary to use a half face respirator with P100 or HEPA filters during operations such as maintenance, clean up, or transferring. This decision should be made on a case-by-case basis depending on total exposure. Use respiratory protection in accordance with your company's respiratory protection program, local regulations and OSHA regulations under 29 CFR 1910.134.

Skin Protection: Normal work clothing (long sleeved shirts and long pants) is recommended. Use gloves. Skin irritation is known to occur chiefly at the pressure points such as around the neck, wrists, waist and between the fingers.

Eyes/Face Protective Equipment: Wear safety glasses, goggles or face shield.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White to gray powder or shredded fiber glass.

ODOR: None

PHYSICAL STATE: Solid

pH: Does not apply
Vapor Pressure (mm Hg @ 20°C): Not applicable
Vapor Density (Air=1): Not applicable
Boiling Point: Not applicable
Solubility (H2O): Insoluble
Specific gravity (water=1): 2.55-2.58
Freezing Point: Not applicable
Evaporation Rate (n-Butyl Acetate=1): Not applicable
Viscosity: Not applicable
VOC: <0.4%
Melting Point: >800°C

SECTION 10 – CHEMICAL STABILITY AND REACTIVITY INFORMATION

STABILITY: This is a stable material.

CONDITIONS TO AVOID: None known.

INCOMPATIBLE MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: None, except in fire. See Section 5 of MSDS for combustion products statement.

Hazardous Polymerization: Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

General Product Information

Dusts may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. People with pre-existing respiratory conditions, may experience difficulty breathing, congestion and chest tightness.

Carcinogenicity:

Fiber Glass Continuous Filament: The International Agency for Research on Cancer (IARC) in June 1987, categorized fiberglass continuous filament 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 fiberglass continuous filament as a possible, probable, or confirmed cancer causing material. This conclusion was confirmed by IARC in October 2001.

The American Conference of Governmental Industrial Hygienists (ACGIH) A4 classification, not classifiable as a human carcinogen, for respirable continuous filament

glass fibers is based on inadequate data in terms of its carcinogenicity in humans and/or animals.

For respirable continuous filament glass fibers, a TLV-TWA of 1 fiber/cc was adopted to protect workers against mechanical irritation. The TLV-TWA of 5 mg/m³ was adopted for nonrespirable glass filament fiber, measured as inhalable dust, to prevent mechanical irritation of the upper respiratory tract.

Note: There are no known chronic health effects connected with long term use or contact with these products.

Products that are chopped, crushed or severely mechanically processed during manufacture or use may contain a very small amount of respirable glass fiber-like fragments. Persistent respirable glass fibers are suspected to cause cancer. NIOSH defines "respirable fibers" as greater than 5 microns in length and less than 3 microns in diameter with an aspect ratio $\geq 5:1$ (length-to-width ratio)

Chronic Study in Animals

A laboratory test was conducted with a different product (special application glass fiber) with comparable composition and durability. Test animals breathing very high concentrations of respirable fibers on a long-term basis developed fibrosis, lung cancer and mesothelioma.

About 23% of the rats (n=43) exposed to 1022 f/cc for 5 hrs/day, 7 days/week for 52 weeks developed lung tumors (adenoma and carcinoma). Five percent (5%) of the unexposed control group (n=38) developed lung tumors (adenoma and carcinoma).

Five percent (5%) of the rats in the exposed group developed mesothelioma and 12.5% developed advanced fibrosis. None of the rats in the unexposed control group developed mesothelioma and 0.6% developed advanced fibrosis.

A second group of rats was exposed to a similar concentration of asbestos (respirable amosite fibers) for 5 hours/day, 7 days a week for 52 weeks. 38% of the rats developed lung tumors (adenoma and carcinoma) and 5% developed mesothelioma. 14.5% developed advanced fibrosis.

Importantly, this result, that is similar disease rates for the special application fiber and amosite asbestos, had been predicted in a 1996 scientific paper (Inhal. Tox 8:323-343, 1996 ref). That paper specifically stated that in rats all fibers which were durable enough to remain in a rat lung for two (2) years or more would produce the same disease rates if the exposures were the same. While the special application fiber is much less durable than asbestos, it is stable enough to remain in the rat lung for more than the two year time period. The results of the current study are therefore not unexpected, and they do not indicate that similar disease rates would be seen in longer-lived species or humans, exposed to these fibers.

B: Component Carcinogenicity

Fiber Glass Wool (crushed/shredded continuous filament) (65997-17-3)

ACGIH: A4 – Not classifiable as a human carcinogen.

IARC: Group 3 "not classifiable as to its carcinogenicity to humans"

June 1987 meeting

SECTION 12 - ECOLOGICAL INFORMATION

No data available for this product. This product is not anticipated to harm animals, plants or fish.

SECTION 13 - DISPOSAL CONSIDERATIONS

US EPA Waste Number & Descriptions:

A: General Product Information

Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA.

B: Component Waste Numbers:

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions:

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

SECTION 14 - TRANSPORT INFORMATION

US DOT Information

Shipping Name: Not regulated for transport

Hazard Class: None

UN/NA#: None

Packing Group: None

Required Label(s): None

TDG Information

Shipping Name: Not regulated for transport

Hazard Class: None

UN/NA #: None

Packing Group: None

Required Label(s): None

Additional Info: None

Additional Transportation Regulations:

No additional information available.

SECTION 15 - REGULATORY INFORMATION

US Federal Regulations:

A: General Product Information

No additional information available.

B: Component Analysis

No additional information available.

The following is provided to aide in the preparation of SARA 311 and 312 reports.

SARA 311/312

Acute Health Hazard: Yes

Chronic Health Hazard: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactive Hazard: No

C: Clean Air Act

The following components appear on the Clean Air Act-1990 Hazardous Air Pollutants List: None

State Regulations:

A: General Product Information

No additional information available

B: Component Analysis – State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Fibre Glass (continuos filament)	65997-17-3	No	No	No	No	No	No

Other Regulations:

A: General Product Information

No additional information available

B: Component Analysis – Inventory

Component	CAS #	TSCA	DSL	EINECS
Fiber Glass (continuous Filament)	65997-17-3	Yes	Yes	Yes

C: Component Analysis – WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredients Disclosure List:

None

WHMIS Status: Not controlled

WHMIS Classification: None

SECTION 16 – OTHER INFORMATION

HMIS and NFPA Hazard Ratings:	Category	HMIS	NFPA
	Acute health	1	1

Flammability	0	0
Reactivity	0	0

NFPA Unusual Hazards: None

HMIS Personal Protection: To be supplied by user depending upon use.

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