

## Material Safety Data Sheet

Revision 3 – 20 June, 2008

### Section 1 - Chemical Product and Company Identification

**Product Name(s):** Microglass Milled Fiber 9000 Series      **Manufacturer:** Fibertec Inc. Bridgewater, MA, U.S.A.

**Chemical Name or composition:** Fibrous glass( composition consisting principally of oxides of silicon, calcium, aluminum, magnesium and boron fused in an amorphous vitreous state

#### Health and Technical Contacts:

Health Issues Information (8am-4pm ET): 508-697-5100  
Technical Product Information (8am-4pm ET): 508-697-5100

#### Emergency Contacts:

Emergencies ONLY (after 4 pm ET and weekends)  
CHEMTREC (24 hours everyday): 1-800-424-9300

### Section 2 - Composition / Information on Ingredients

CAS #	Component	Weight %
65997-17-3	Man Made Glass Fiber	>99.2 %
None assigned	Sizing	=/< .8 %

\*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 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 particulates.

#### Component Information/Information on Non-Hazardous Components

No additional information available.

# Material Safety Data Sheet

## Section 3 - Hazards Identification

### Emergency Overview

No unusual conditions are expected from this product.

#### Appearance and Odor:

White to gray powder with little or no odor.

#### Primary Route(s) 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:

Dusts and fibers from this product may cause temporary mechanical irritation to the skin.

##### Eye Contact:

Dusts and fibers from this product may cause temporary mechanical irritation to the 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 warm 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 penetrating 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.

# Material Safety Data Sheet

## Section 5 - Fire Fighting Measures

**Flash Point:** None  
**Upper Flammability Limit:** None  
**Flammability Classification:** Non-flammable

**Flash Point Method:** Not determined  
**Lower Flammability Limit:** None

### **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 Procedures:**

None.

## Section 7 - Handling and Storage

### **Handling Procedures:**

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.

# Material Safety Data Sheet

## Section 8 - Exposure Controls / Personal Protection

### Exposure Guidelines:

#### A: General Product Information

Follow all applicable exposure limits.

#### B: Exposure Limits

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

CAS # 65997-17-3	OSHA PEL 8 Hr TWA	ACGIH TLV (8-hr TWA)
Non Respirable fiber and particulate	15 mg/m <sup>3</sup>	5 mg/M <sup>3</sup>
Respirable particulate	5 mg/m <sup>3</sup>	None Established
Resp. part. With fiber-like dimensions	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 exposures. 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.

Where direct contact, or handling causes airborne product, the use of gloves and coveralls is recommended.

#### Eyes/Face Protective Equipment:

Wear safety glasses, goggles or face shield.

# Material Safety Data Sheet

## Section 9 - Physical & Chemical Properties

<b>Appearance;</b>	White to grey powder	<b>Odor</b>	None
<b>Physical State:</b>	Solid	<b>Ph</b>	Not Applicable
<b>Vapor pressure(mm hg@20 C:</b>	Not Applicable	<b>Vapor Density Air = 1</b>	Not Applicable
<b>Boiling point:</b>	Not Applicable	<b>Solubility</b>	insoluble
<b>Specific Gravity H2O = 1:</b>	2.55 - 2.58	<b>Freezing Point</b>	Not Applicable
<b>Evaporation Rate (n-Butyl Acetate = 1):</b>	Not Applicable	<b>Melting point</b>	> 800 C
<b>VOC:</b>	< .04 %	<b>Viscosity</b>	Not Applicable

### **Physical Properties: Additional Information**

No additional information available.

## Section 10 - Chemical Stability & 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 Effects:**

#### **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.

# Material Safety Data Sheet

## 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/m<sup>3</sup> 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 of  $\geq 5:1$  (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 advance 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 (2) 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

# Material Safety Data Sheet

## 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

### **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 - Transportation 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

#### **A: General Product Information**

No additional information available.

# Material Safety Data Sheet

**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:

Fiberglass (as continuous filament)	CAS # 65997-17-3	CA	FL	MA	MN	NJ	PA
		No	No	No	No	No	No

**Other Regulations:**

**A: General Product Information**

No additional information available.

**B: Component Analysis - Inventory**

Component	CAS #	TSCA	DSL	New Zealand	Aus	Miti Japan	EINECS
Fiber Glass (continuous Filament)	65997-17-3	Yes	Yes	Yes	Yes	No	Yes

**C: Component Analysis - WHMIS IDL**

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

**None**

**WHMIS Status:** Not controlled WHMIS

**Classification:** None



# Material Safety Data Sheet

## 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.

Reasonable care has been taken in the preparation of this information, the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. Final determination of the suitability of the material for the use contemplated is the sole responsibility of the user. No warranty is expressed or implied, and the manufacturer's sole responsibility shall be to replace such quantity of the material proven to be defective.

### Revision Summary:

This is a revised MSDS, which replaces Microglass Milled Fiber series 3000 dated 4/16/04 with updated contact information and 16 section format. Read this information carefully.

Rev: 1 4 June, 2008 Additions to Inventory Lists  
Rev 2 6 June, 2008 Addition to PPE requirements  
Rev.3 20 June, 2008 Corrected Australian AICS listing