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**FOR CHEMICAL EMERGENCY  
CALL (800) 424-9300 24 HRS.**

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## SECTION 1 – MATERIAL IDENTIFICATION

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PRODUCT NAME(s): PART #223 – 18 Ounce Woven Roving

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## SECTION 2 - COMPOSITION OF INGREDIENTS

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CAS #	Component	Percent by Wt.
65997-17-13	Fiber Glass (non-respirable)*	94-100
N/A	Size	0-2
N/A	Polyester	0-4

\* 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 particulates.

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

No additional information available.

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## SECTION 3 - HAZARDS IDENTIFICATION

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### Emergency Overview

No unusual conditions are expected from this product

**APPEARANCE AND ODOR:** White/off-white colored solid with 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 product gastrointestinal irritation and disturbances.

**Medical Conditions Aggravated by Exposures:**

Chronic respiratory or skin conditions may temporarily worsen from exposure to this product.

**Chronic Conditions:**

See Section 11 for additional information.

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## SECTION 4 – FIRST AID MEASURES

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**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 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:** Accidental ingestion of this material is unlikely. If this does occur, watch 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 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Exposure Guidelines

	ACGIH TLV	OSHA PEL	Ontario TWAEV
Glass Fiber-continuous filament, non-respirable 65997-17-3	5 mg/m <sup>3</sup> (inhalable dust fraction) 1 f/cc (respirable fiber)	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)	

	ACGIH TLV	OSHA PEL	Ontario TWAEV
Polyester Yarn	10 mg/m <sup>3</sup> (inhalable dust fraction) 3 f/cc (respirable fiber)	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)	

### Ventilation:

General dilution ventilation and/or local exhaust ventilation should be provided as necessary to maintain exposures below regulatory limits.

### 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 should be used when high dust levels are encountered, the level of glass fibers in the air exceeds the occupational exposure limits, or if irritation occurs.

**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.

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## SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

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**Appearance:** White/off-white Solid  
**Physical State:** Solid  
**Vapor Pressure (mm Hg @ 20C):** Not available  
**Boiling Point:** Not applicable  
**Specific Gravity (Water=1):** 2.60  
**Evaporation Rate (n-Butyl Acetate=1):** Not applicable  
**VOC:** <0.4%

**Odor:** None  
**pH:** Not applicable  
**Vapor Density (Air=1):** Not available  
**Solubility (H2O):** Insoluble  
**Freezing Point:** Not applicable  
**Viscosity:** Not applicable  
**Melting Point:** >800°C

**Physical Properties: Additional Information**

No additional information available.

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**SECTION 10 – CHEMICAL STABILITY & REACTIVITY INFORMATION**

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**Stability:** This is a stable material.

**Conditions to Avoid:** None known

**Incompatible Materials:** None known.

**Hazardous Decomposition Products:** Sizing or binders may decompose in a fire. See Section 5 of MSDS for information on hazardous combustion products.

**Hazardous Polymerization:** Will not occur.

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**SECTION 11 – TOXICOLOGY INFORMATION**

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**Acute Effects:**

**Product Information:** Dust 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 Continous Filament:** The International Agency for Research on Cancer (IARC) in June, 1987, categorized fiber glass 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 fiber glass continuous filament as a possible, probable, or confirmed cancer causing material.

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. 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 5hrs/day, 7 days/week for 52 weeks 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 advance 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 (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, October 2001 meeting

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## **SECTION 12 - ECOLOGICAL INFORMATION**

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

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## SECTION 13 - DISPOSAL CONSIDERATIONS

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### 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 Waster Numbers

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

### Disposal Instructions:

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

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## SECTION 14 - TRANSPORT INFORMATION

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### 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.

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## SECTION 15 – REGULATORY INFORMATION

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### US Federal Regulations:

#### A: General Product Information

No additional information available.

#### B: Component Analysis

No additional information available.

The following is provided to aid 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 list:

Component	CAS#	CA	FL	MA	MN	NJ	PA
Fiber Glass (continuous 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 Ingredient Disclosure List: **None**

**WHMIS Status:** Not controlled

**WHMIS Classification:** None

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**SECTION 16 – Other Information**

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HMIS and NFPA Hazard Rating	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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## SECTION 16 - COMMENTS

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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