

Safety Data Sheet

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1. Product and company identification

Generic Name Fiber Glass Continuous Filament

Product Name Fiberglass Chopped Strand Mat
Fiberglass Woven Roving Fabric
Fiberglass Multi Ply Stitched Chopped Strand Mat/Woven Roving
Fiberglass Filament Winding Roving
Fiberglass Hot Melt Leno Woven Roving
Fiberglass Hot Melt Uni-Directional Fabric
Fiberglass Pultrusion Roving
Fiberglass Composite Uni-Directional Fabric
Fiberglass Knitted Fabrics (various styles)

Supplier Matrix Composites Inc.
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2. Hazards identification

Emergency overview Fiberglass may cause mechanical irritation to the skin, eye and upper respiratory tract. Use only with adequate ventilation. Wash thoroughly after handling.

Potential acute health effects

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

Ingestion Although ingestion of this product is not likely to occur in industrial applications, accidental ingestion may cause illness or irritation of the mouth and gastrointestinal tract.

Skin Dusts from this product may cause temporary mechanical irritation.

Eyes Dusts from this product may cause temporary mechanical irritation.

Over-exposure signs/symptoms

Ingestion No specific data.
Skin No specific data.
Eyes No specific data.
Inhalation No specific data.

Medical conditions aggravated by overexposure

Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200). See toxicological information (Section 11)

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Fibrous glass, continuous filament	65997-17-3	>95
Organic Surface Binder/Sizing	Not available.	<5
Some Fiberglass products contain Textured Polyester Filament Yarn		

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Eye contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. If irritation persists, seek medical attention.
Skin contact	Remove contaminated clothing and shoes. Gently wash with plenty of soap and water. If irritation persists, seek medical attention. If glass fiber becomes embedded, get medical attention.
Inhalation	Remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Keep person warm and at rest. Do not induce vomiting. Get medical attention/advice.
Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product	Material is not an electrical conductor and may accumulate static charge.
<u>Extinguishing media</u>	
Suitable	Use an extinguishing agent suitable for the surrounding fire.
Not suitable	None known.
Special exposure hazards	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Hazardous combustion products	Fiberglass will not burn, but smoking of the product may occur at approximately 400 - 500 °F (approximately 200 - 260 °C) due to decomposition of the surface binder. Surface binders may decompose in a fire situation and release carbon monoxide, carbon dioxide and water. Additionally, there are many chemicals that can evolve during any partial decomposition of chemical products. The amounts or identities cannot be predicted and can differ in each situation.

5. Fire-fighting measures

Special protective equipment for fire-fighters Fiberglass itself will not support combustion, but in a sustained fire, proper protection against products of combustion from the fuel and sizing/binder must be worn.

6. Accidental release measures

Personal precautions No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Put on appropriate personal protective equipment.

Environmental precautions Fiberglass is generally considered to be an inert solid waste. No special precautions are needed in case of a release or spill.

Large spill Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Small spill Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Reference to other sections See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

7. Handling and storage

Handling Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not swallow. Do not get in eyes or on skin or clothing.

Storage Store in accordance with local regulations.

8. Exposure controls/personal protection

Name	Result	ACGIH	OSHA
Synthetic vitreous fibers	TWA	1 f/cc R 5 mg/m ³ (Inhalable)	15 mg/m ³ 5 mg/m ³ R (PNOC)

Key to abbreviations

A = Acceptable Maximum Peak	S = Potential skin absorption
ACGIH = American Conference of Governmental Industrial Hygienists.	SR = Respiratory sensitization
C = Ceiling Limit	SS = Skin sensitization
F = Fume	STEL = Short term Exposure limit values
IPEL = Internal Permissible Exposure Limit	TD = Total dust
OSHA = Occupational Safety and Health Administration.	TLV = Threshold Limit Value
R = Respirable	TWA = Time Weighted Average
Z = OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances	

8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
Engineering measures	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Hygiene measures	Good personal hygiene and the use of barrier creams, caps, protective gloves, cotton coveralls or long sleeved loose fitting clothing will maximize comfort. Appropriate techniques should be used to remove potentially contaminated clothing. Work clothing should be laundered separately from other clothing before reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Eyes	Safety glasses with side shields.
Hands	Use gloves to protect against physical irritation or injury if required by handling conditions.
Respiratory	If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Skin	Wear clean, body-covering clothing.
Environmental exposure	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state	Solid
Flash point	Closed cup: Not applicable [Product does not sustain combustion.]
Color	White to yellowish
Odor	Odorless
pH	Not available
Boiling/condensation point	Not available
Melting/freezing point	>800°C (>1472°F)
Specific gravity	2.65 to 2.7
Vapor pressure	Not available
Vapor density	Not available
Volatility	0% (v/v), 0% (w/w)
Evaporation rate	Not available
Viscosity	Not applicable

9. Physical and chemical properties

Solubility	Insoluble
Partition coefficient: n-octanol/water	Not available
% Solid. (w/w)	100

10. Stability and reactivity

Stability	The product is stable.
Conditions to avoid	When exposed to high temperatures may produce hazardous decomposition products.
Materials to avoid	None known
Hazardous decomposition products	Fiberglass products may release small amounts of acetic acid and other organic materials at elevated temperatures.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

<u>Acute toxicity</u> Conclusion/Summary	Not available
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<u>Chronic toxicity</u> Conclusion/Summary	<p>There are no known health effects from the long term use or contact with nonrespirable continuous filament fibers, which is the type of fiber glass that PPG produces. Nonrespirable fibers cannot reach the deep lung because they have a diameter of greater than 3.5 micrometers. Fibers of this diameter cannot penetrate the narrow, bending passages of the human respiratory tract to reach the lower regions of the lung and thus, have no possibility of causing serious pulmonary damage. Instead, they deposit on the surfaces of the upper respiratory tract, nose, or pharynx. These fibers are then cleared through normal physiological mechanisms.</p> <p>Animal Study: In 2000, the Institute of Occupational Medicine (IOM) in Scotland published the results of a long term inhalation study in animals exposed to fibers that were manufactured to be RESPIRABLE. Animals were exposed to a very high concentration of these RESPIRABLE fibers (1022 fibers/cc for 5 hours/day, 7 days/week for 52 weeks). Exposure to these microfbers resulted in the development of fibrosis, lung cancer and mesothelioma as a result of the fibers being able to reach the lower regions of the lung.</p> <p>Chopped, crushed or severely mechanically processed fiber glass may contain a very small amount of respirable fibers that could reach the deep lung. The measured airborne concentration of these respirable fibers in areas where severe processing of fiberglass occurred has been shown to be extremely low and well below the TLV. Repeated or prolonged exposure to respirable glass fibres may cause fibrosis, lung cancer and mesothelioma. Fiber glass in the form supplied, does not contain respirable fibers.</p>
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11. Toxicological information

Epidemiology Studies: Two major studies in the US (performed by the University of Pittsburgh) and Europe (performed by the International Agency for Research on Cancer) showed no increase in lung cancer or respiratory disease among people working in production facilities producing NONRESPIRABLE continuous filament fiberglass. An additional smaller study performed in Canada also did not show an association between exposure of workers to fiber glass and respiratory cancer.

Irritation/Corrosion

Skin	Not available
Eyes	Not available
Respiratory	Not available

Sensitization

Skin	Not available
Respiratory	Not available

Target organs

Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes.

Carcinogenicity Classification

Product/ingredient name	ACGIH	IARC	NTP	OSHA
Synthetic vitreous fibers	A4		-	-
Glass filament, continuous		3	-	-

Carcinogen Classification code **ACGIH: A1, A2, A3, A4, A5**
IARC: 1, 2A, 2B, 3, 4
NTP: Proven, Possible
OSHA: +
Not listed or regulated as a carcinogen: -

12. Ecological information

Environmental effects No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	TDG	Mexico	IMDG
UN number	Not available			Not regulated
UN proper shipping name				
Transport hazard class(es)	Not available			
Packing group				
Environmental hazards				No
Marine pollutant substances	Not applicable	Not applicable	Not applicable	Not applicable

Special precautions for user **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. Regulatory information

United States inventory (TSCA 8b) All components are listed or exempted.

United States

SARA 302/304/311/312 extremely hazardous substances: No products were found.
 SARA 302/304 emergency planning and notification: No products were found.
 SARA 302/304/311/312 hazardous chemicals: No products were found.
 CERCLA: Hazardous substances.: No products were found.

SARA 311/312 SDS Distribution - Chemical Inventory - Hazard Identification:

<u>Chemical name</u>	CAS #	Acute	Chronic	Fire	Reactive	Pressure
Fibrous glass, continuous filament	65997-17-3	N	Y	N	N	N
Product as-supplied :		N	N	N	N	N

Canada

WHMIS (Canada) None identified.

Mexico

Classification
 Flammability - 0 Health - 1 Reactivity - 0

16. Other information

Material is not considered hazardous per 29 CFR 1910.1200

Hazardous Material Information System (U.S.A.)

Health - 1 Flammability – 0 Physical hazards - 0

National Fire Protection Association (U.S.A.)

Health - 1 Flammability – 0 Instability - 0

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by Matrix Composites, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.