巨石集团有限公司 JUSHI GROUP CO., LTD.	Version:	1
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SAFETY DATA SHEET

Continuous Glass Fiber Products

1. Product and Company Identification

Product Name	Continuous Glass Fiber Products, Including Assembled Roving, Direct Roving, Dry Chopped Strands, Wet Chopped Strands, Woven Roving, Stitch Chopped Strand Mat, Power Chopped Strand Mat, Emulsion Chopped Strand Mat , Stitch Combo Mat, Woven Roving Combo Mat, Glass Filament Yarn, Marketable Cake, Cut Strands, Texturized Yarn.
Product Code	
CAS #	Different Products
Other Names	
Manufacturer & Supplier	**MANUFACTURER INFORMATION:** **Jushi Canada Fiberglass Co., Ltd.** Markham, Toronto Canada TELEPHONE: 001 9054777628 FAX NUMBER: 001 9054776047 E-mail: a.gardiner@jushicanada.com **Jushi USA Inc.** 4982 4th Street Irwindale,CA 91706 U.S.A. TELEPHONE: (626) 960-2038 FAX NUMBER: (626) 960-2037 E-mail: info@Jushiusa.com
Emergency Contact Information	**Included above, in the Manufacturer details. If you couldn't contact one of them, please call the company emergency telephone:** (8:30-16:40 In Beijing, from Monday to Saturday) Customer Service: +86-573-88136367 International Sales: +86-573-88181025 Domestic Sales: +86-573-88181016 E-mail: services@jushi.com
Recommended Use(S)	Advanced fiber reinforced composite. Fiberglass is an inorganic nonmetal material and is used as Plastics reinforcement and acoustical insulation.

2. Hazards Identification

GHS Classification	Eye irritation - Category 2B	
Pictogram(s)	-	
Signal Word	**Warning**	
Hazard Statements	H320	Causes eye irritation.
Precautionary Statements - General	P101	If medical advice is needed, have product container or label at hand.
	P102	Keep out of reach of children.
	P103	Read label before use.
Precautionary Statements - Prevention	P264	Wash hands thoroughly after handling.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337+P313	If eye irritation persists: Get medical advice/attention.
Precautionary Statements - Response	-	-
Precautionary Statements - Storage	-	-
	-	-
Precautionary Statements - Disposal	-	-

3. Composition / Information on Ingredients

Ingredients	Glass %	Sizing %	Binder %	Water %	Total

Chemical Name	Fiber Glass Wool	(3-Aminopropyl) triethoxysilane	Silicon Dioxide	water	
CAS / Product	65997-17-3	919-30-2	7631-86-9	7732-18-5	
Assembled Roving	98.75 ±0.75	1.05 ±0.75		0.2	100.00
Direct Roving	99.28 ±0.58	0.62 ±0.48		0.10 ±0.10	100.00
Dry Chopped Strands	99.08 ±0.82	0.82 ±0.75		0.1	100.00
Wet Chopped Strands	99.08 ±0.82	0.10 ±0.10		10.00 ±2.00	100.00
Woven Roving	99.33 ±0.53	0.57 ±0.43		0.10 ±0.10	100.00
Power Chopped Strand Mat	95.40 ±2.95	0.85 ±0.50	3.65 ±2.35	0.10 ±0.10	100.00
Emulsion Chopped Strand Mat	94.85 ±1.8	0.85 ±0.50	4.2 ±1.20	0.10 ±0.10	100.00
Glass Filament Yarn	98.90 ±0.30	1.00 ±0.20		0.10 ±0.10	100.00
Cut Strands	88.50 ±3.50			11.50 ±3.5	100.00
Marketable Cake	99.45 ±0.25	0.45 ±0.15		0.10 ±0.1	100.00
Texturized Yarn	99.55 ±0.35	0.35 ±0.25		0.10 ±0.10	100.00
Milled Fiberglass	98.85 ±0.15	0.1 ±0.1		0.1	100.00

4. First-aid Measures

First-aid: Eyes	Immediately flush eyes with clean water for at least 15 minutes. If

	irritation persists, get medical help.
First-aid: Skin	If irritation occurs to the skin, rinse with soap and water. Rinse with cold water since warm water will make the skin pores open to allow fiberglass to penetrate more deeply. If fiberglass penetrates the skin, use a wash cloth to help pull out the fiberglass. To avoid further irritation, do not rub or scratch affected skin. If irritation persists, get medical help. Make sure to refrain from using compressed air to remove fiberglass from the skin.
First-aid: Inhalation	If inhaled, immediately remove the affected person to fresh air. If irritation persists, get medical help
First-aid: Ingestion	Normally, ingestion of this material is unlikely. If it does occur, watch the person for several days to make sure that gastrointestinal disturbance does not occur. Do not let the person vomit unless required by medical personnel. If disturbance persists, get medical help.

5. Fire-fighting Measures

Suitable Extinguishing Media	Non-flammable. But the size and packing material may burn. Use dry chemical, foam, carbon dioxide and water as extinguishing media.
Specific hazards arising from the Combustion Products	Primary combustion products are carbon monoxide, hydrogen, carbon dioxide and water. Other undetermined compounds and fiber glass dusts can be released in the case of fire.
Special protective actions for fire-fighters	Fire fighters must use self-contained breathing apparatus and wear full protective gear.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	Wear safety goggles.

Environmental Precautions	The material is non-hazardous in water.
Containment and Clean-up Procedures	In case of release to land, the material should be scooped up as waste and put into a special container and stored in a designated area. In case of release of water, the material will sink and disperse along the bottom of waterways or ponds and can not be easily removed after it is waterborne. However, the material is non-hazardous in water.

7. Handling and Storage

Precautions for Safe Handling	Try to prevent the packing material from be damaged and keep the product inside the packing material to minimize the generation of dusts.
Conditions for Safe Storage	Maintain a clean work environment and avoid generation of fiberglass fragments from improper handling. Keep product in its packaging until use to minimize potential dust generation.
Suitable Packaging	Original packaging.

8. Exposure Controls / Personal Protection

Control Parameters / limits

Component	Dose	
	Permissible Exposure Limit of OSHA (8-hr Average Weight)	Permissible Exposure Limit of ACGIH (8 hr Average Weight)
Total Dust	15 mg/m^3	10 mg/m^3

	Respirable particulates	5 mg/m^3	3 mg/m^3
	Respirable Fiber	-	1 fiber/ml
Engineering Measures	Production areas are closed off and a required relative humidity is maintained.		
Respiratory Protection	Wear a suitable mask when working in an environment where dust concentration is high.		
Eye Protection	Wear safety glasses and face shield.		
Skin Protection	Normal loose working clothing (long-sleeved shirts and long pants) is recommended. Skin irritation occurs primarily at the contact areas such as around the neck and waist.		
Hand Protection	Wear gloves. Skin irritation occurs primarily at the contact areas such as wrists and between the fingers.		

9. Physical & Chemical Properties

Properties	Value	Comments, Conditions
Appearance	White or off-white solid	
Odor	No odor	
Odor Threshold	N/Ap	
pH	N/Ap	
Melting Point/Freezing Point (oC)	N/Ap	Softening point >800°C.
Initial Boiling Point And Boiling Range (oC)	N/Ap	
Flash Point (oC)	N/Ap	
Evaporation Rate (g/ m2.hr)	N/Ap	

Flammability State	Non-flammable	
Lower Flammability Limits (% v/v)	N/Ap	
Upper Flammability Limits (% v/v)	N/Ap	
Lower Explosive Limits (% v/v)	N/Ap	
Upper Explosive Limits (% v/v)	N/Ap	
Vapor Pressure (mmHg, @20C)	N/Ap	
Vapor Density	N/Ap	
Relative Density, liquid (@20C)	2.6	
Solubility(ies) in water	Insoluble	
Partition Coefficient: N-Octanol/Water	N/Ap	
Auto-Ignition Temperature (oC)	N/Ap	
Decomposition Temperature (oC)	N/D	
Dynamic Viscosity	N/Ap	
Volatility (%w)	N/D	

10. Chemical Stability & Reactivity Information

Stability/Reactivity	This is a Stable material under the ambient condition.
Possibility of Hazardous Reactions	Hazardous Polymerization will not occur.
Conditions and Materials to Avoid	Heat, fire, sunlight
Hazardous Decomposition Products	In high temperature or fire, oxides of carbon, hydrogen and silicon dust will form.

11. Toxicological Information

Toxicological Information for Product or Components		
	Ingredient	Regulation / Dose
	Fiber Glass Wool	N/Av
	Silicon Dioxide	N/Av
	(3-Aminopropyl) triethoxysilane	N/Av
	Irritability: Fiberglass dusts may cause irritation to skin and eye. Ingestion of fiberglass may cause irritation to the throat, stomach and gastrointestinal tract. Inhalation may cause coughing, sneezing and nose and throat irritation. Experience indicates that inhalation of a large amount of fiberglass may cause difficulty in breathing, congestion and chest tightness. Carcinogenicity: The International Agency for Research on Cancer (IARC), agency of the World Health Organization (WHO), has determined that fiberglass is a non-carcinogenic material because the evidence is inadequate to prove that fiberglass can cause humans and experimental animals to develop cancer.	

12. Ecological Information

Ecotoxicity Values	No data available for this product. Fiberglass products are not listed as a material harmful to animals, plants and fish.

13. Disposal Considerations

Waste Disposal Regulation(s) / Operation	Dispose waste material according tolocal environmental regulations.

14. Transportation Information

UN Number	-

UN Proper Shipping Name	-
Shipping Placard	**-**
Hazard Class	-
Packing Group	-
DOT Proper Shipping Name	-
Hazard labels (DOT)	-
IMDG	-

15. Regulatory Information

Safety, Health and Environmental Regulations/ Legislation Specific for The Product	SARA title III: Hazard categories: Acute health: Yes Chronic health: No Fire hazard: No Pressure hazard: No Reactivity hazard: No **Reportable ingredients:** Sec.302/304: None Sec.313: None Clean Air Act: No ingredient is listed. WHMIS(Canada) Status: No controlled. National chemicals inventories Based on the rules enforced with regards to the marketing and use of chemicals in countries where our Jushi products are manufactured,

	each chemical ingredient of these finished products has to be listed on the National Chemicals Inventory of the specific country where produced. However, glass fiber products are articles under the chemicals inventories listed below and consequently are exempt from listing on these inventories: - The European Inventory of Existing Chemical Substances: EINECS/ELINCS, - The US EPA Toxic Substance Control Act: TSCA, - The Canadian Chemical Registration Regulations: NDSL/DSL, - The Japanese Chemical Substances Control Law under METI: CSCL, - The Australian Inventory of Chemical Substances: AICS, - The Philippine Inventory of Chemicals and Chemical Substances: PICCS, - The Korean Existing Chemicals List: (K)ECL and - The Chinese List on New Chemical Substances.

16. Other Information

Glossary	ACGIH	American Conference of Governmental Industrial Hygienists
	DOT	Department of Transportation, USA
	EPA	Environmental Protection Agency
	LC50	Lethal concentration that will kill 50 percent of the test animals within a specified time.
	LD50	The dose required to produce the death in 50 percent of the exposed species within a specified time.
	N/Ap	Not applicable
	N/D	Not determined
	N/Av	Not available
	OSHA	US Occupational Safety and Health Administration, US Department of Labor.
	PEL	Permissible exposure limit. An exposure limit that is published and enforced by OSHA as a legal standard.
	TLV	The threshold limit value of a chemical substance is a level to which it is believed a worker can be exposed day

		after day for a working lifetime without adverse health effects. Strictly speaking, TLV is a reserved term of the American Conference of Governmental Industrial Hygienists (ACGIH). However, it is sometimes loosely used to refer to other similar concepts used in occupational health and toxicology. TLVs, along with biological exposure indices (BEIs), are published annually by the ACGIH.
	TWA	A time-weighted average is used to calculate a workers daily exposure to a hazardous substance (such as chemicals, dusts, fumes, mists, gases, or vapors) or agent (such as occupational noise), averaged to an 8-hour workday, taking into account the average levels of the substance or agent and the time spent in the area. This is the guideline OSHA uses to determine permissible exposure limits (PELs) and is essential in assessing a worker's exposure and determining what protective measures should be taken.

Legal disclaimer	The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.
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