巨石集团有限公司
JUSHI GROUP CO., LTD.

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

DATE PREPARED：2013-7-19　　SDS Number： Q/JS J0520-2013

巨石集团有限公司 JUSHI GROUP CO., LTD.					Standard Code	J125-01		
					Reolaced Standard	Q/JS J0520—2010		
					Main Drafter	Han Tao		
					Assessor	Li Ziqiang		
Version	Modifi-cation	Release Date	Implement Date	Modify The Implement Date	Standardization Censor	Zhao Gang		
NO.4	NO.0	2013-7-23	2013-7-23	/	Ratifier	Xiang Rubing	Date	7-23

SECTION 1 –IDENTIFICATION OF PRODUCT AND COMPANY

CHEMICAL PRODUCT IDENTIFICATION:

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.

Recommended use of the chemical and restrictions on use:

advanced fiber reinforced composite.

MANUFACTURER INFORMATION：

JUSHI GROUP CO., LTD.

NO.669Wenhua Rd.(S.), Tongxiang Economic Development Zone, Zhejiang 314500, China

FAX NUMBER

Customer Service: +86-573-88181388

International Sales: +86-573-88181058

Domestic Sales: +86-573-88136222

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

Jushi Spain, S.A.

C/Vicente Blasco Ibanez, No, 19 28050 Madrid Spain

TELEPHONE：0034 917678817

FAX NUMBER： 0034 917678818

E-mail: nicanor.amor@jushispain.com

Jushi(India) FRP Accessories Private Limited

310 CREATIVE INDUSTRIAL ESTATE N/M. JOSHI MARG MUMBAI 420011 India

TELEPHONE：0091 224 044 5375/ 22 40335333

FAX NUMBER：0091 22 40335334

E-mail: vishal@jushifrp.com

Jushi Group Sinosia SA Composite Materials

4/65 Nerl Hare Road,Atlantis Industrial7350,Capetown, South Africa

TELEPHONE：27 21 5772747/00852 2541 1114

FAX NUMBER：27 21 5772727

E-mail: w_w9@mweb.co.za

Jushi Italy SRL

VIA ADIGE 10/12 21043 CASTIGLIONE OLONA (VA)

TELEPHONE：0039 0331857918

FAX NUMBER：0039 0331825521

E-mail: essebi@targlass.it

Jushi Canada Fiberglass Co., Ltd.

Markham, Toronto Canada

TELEPHONE：001 9054777628

FAX NUMBER：001 9054776047

E-mail: a.gardiner@jushicanada.com

JUSHI France SAS

65 RUE DU DAUPHINE 69800 SAINT-PRIEST France

TELEPHONE：33 4 72 78 20 48/33 (0) 4 7278 20 62

FAX NUMBER：33 4 72 78 20 41

E-mail: fabrice.bani@fournier-france.fr

JUSHI SINGAPORE PTE. LTD

10 UBI CRESCENT, #03-51(LOBBY C)UBI TECHPARK, SINGAPORE 408564

TELEPHONE：65 67425118

FAX NUMBER：65 6742 7108

E-mail: hsseng@gmail.com

HELM AG Hamburg

Nordkanal Strasse 28 D-20097 Hamburg Germany

TELEPHONE：49 40 2375 1330

FAX NUMBER：49 40 2375 1845

E-mail: e.kloevekorn@helmag.com

Gibson Enterprises, Inc.

4982 4th Street Irwindale,CA 91706 U.S.A.

TELEPHONE：(626) 960-2038

FAX NUMBER：(626) 960-2037

E-mail:info@gibsonfiberglass.com

If you couldn't contact one of them, please call the company emergency telephone.

SDS NUMBER：

Q/JS J0520

EFFECTIVE DATE：

July 19, 2013

SECTION 2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture：

GHS Classification

Hazard class	**Category**
Skin irritation	Category 3
Eye irritation	Category 2B
Acute toxicity	Category 5

GHS label elements：

Signal word Warning

Hazard statements H316- Causes mild skin irritation.
H320- Causes eye irritation.
H303-May be harmful if swallowed.
H333-May be harmful if inhaled.

Symbol No pictogram

Precautionary statements

Prevention： Wash skin thoroughly after handling

Wear protective eye/face protection

Response： IF ON SKIN: rinse with soap and water. Make sure to refrain from rinsing with warm 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.

IF IN EYE: Immediately flush eyes with clean water for at least 15 minutes. If irritation persists, get medical help.

If inhalation occurs: immediately remove the affected person to fresh air. If irritation persists, get medical help.

If ingestion occurs: 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.

Other hazards： Not available.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients of Products:

Product Name	Glass, % Cas no. 65997-17-3		Sizing, % Cas no. 919-30-2		Binder, % Cas no. 7631-86-9		Water, % Cas no. 7732-18-5		TOTAL,%
	Mean	variant	Mean	variant	Mean	variant	Mean	variant	
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	/		0.10		100.00
Wet Chopped Strands	89.90	±2.10	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	/		0.10		100.00

SECTION 4 – FIRST-AID MEASURES

Skin Contact:

If irritation occurs to the skin, rinse with soap and water. Make sure to refrain from rinsing with warm 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.

Eye Contact:

Immediately flush eyes with clean water for at least 15 minutes. If irritation persists, get medical help.

Inhalation:

If inhaled, immediately remove the affected person to fresh air. If irritation persists, get medical help.

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.

SECTION 5 – FIRE-FIGHTING MEASURES

Flammability Classification：

Non-flammable. But the size and packing material may burning.

Hazardous Combustion Products：

Primary combustion products are carbon monoxide, hydrogen, carbon dioxide and water. Other undetermined compounds can be released in small quantities.

Fire-Fighting Methods：

Use dry chemical, foam, carbon dioxide and water as extinguishing media.

Fire-Fighting Instructions:

Fire fighters must use self-contained breathing apparatus and wear full protective gear.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 – HANDLING AND STORAGE

Handling：

Try to prevent the packing material from be damaged and keep the product inside the packing material to minimize the generation of dusts. Maintain a clean work environment and avoid generation of fiberglass fragments from improper handling.

Storage：

Keep product in its packaging until use to minimize potential dust generation.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Highest Permissible Concentration：

National and international hygiene standards are as follows：

Component	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 Fibre	/	1 fibre/ml

Engineering Control：

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.

Body 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.

SECTION 9 – PHYSICLAL AND CHEMICAL PROPERTIES

Product Appearance and Properties:

White or off-white solid；No odor.

Flash Point：

Not applicable

pH Value：

Not applicable.

Ignition Temperature：

Not applicable

Melting Point：

Not applicable. Softening point >800°C.

Explosion Upper Limit：

Not applicable

Boiling Point：

Not applicable.

Explosion Lower Limit：

Not applicable

Relative Density：

2.6 Times that of water.

Solubility (in Water)：

Insoluble

Relative Vapor Density：

Not applicable

Product Use：

Fiberglass is an inorganic nonmetal material and is used as Plastics reinforcement and acoustical insulation.

SECTION 10 – STABILITY AND REACTIVITY

Stability:

This is a Stable material.

Materials to Avoid：

None.

Conditions to avoid：

None.

Hazardous Polymerization

Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity：

None.

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.

SECTION 12 – ECOLOGICAL INFORMATION

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

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA Hazard class：

Non-hazardous.

Disposal Instructions：

Dispose waste material according to local environmental regulations.

DECTION 14 – TRANSPORT INFORMATION

Classification and Code of Hazards:

None.

UN Code：

None.

Packing Mark:

None.

Packing Category:

None.

Packing Method：

None.

Transport Instructions：

Rolling and moisture should be avoided in transit.

SECTION 15 – REGULATORY INFORMATION

SARA title Ⅲ：

Hazard categories：

Acute health： Yes

Chronic health：	No
Fire hazard：	No
Pressure hazard：	No
Reactivity hazard：	No

Reportable ingrediedients：

Sec.302/304：	None
Sec.313：	None

Clean Air Act：

No ingredient is listed.

WHMIS(Canada) Status：

No controlled.

WHMIS classification(s)：

None.

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.

SECTION 16 – OTHER INFORMATION

Preparation Date：

July 2013

Prepared by：

QA&EHS Dept., Jushi Group Co., Ltd.

Data Verified by：

Vice- president of Jushi Group Co., Ltd

Modification Information：

The Fourth Version