

 巨石集团有限公司 JUSHI GROUP CO., LTD.					Standard Code	J1251-001		
					ReolacedStandard	Q/JS J0520-2013		
					MainDrafter	Han Tao\Da Yu		
					Assessor	Chu PeiGen		
Version	Modifi-cation	Release Date	Implement Date	Modify The ImplementDate	Standardization Censor	Gu GuiJiang		
NO.5	NO.1	27/2/2016	27/02/2016	13/05/2016	Ratifier	Xiang RuBin g	Date	13/5

SAFE USE INSTRUCTIONS OF ROVING

For Continuous Glass Fiber Products

INTRODUCTION

According to the European Regulation(ER) on Chemicals No.1907/2006(REACH) enforced from June 1st2007, Material Safety Data Sheets (MSDS) are required only forhazardous substances and preparations.Continuous glass fiber products of our company are defined as “articles” under REACH and thereforeMSDS are not required for them.

In order toensure our customers’acquisition of information on proper handling and use of glass fiber products, Jushi Group provides the customers with this Safe Use Instructions.

SECTION 1 –IDENTIFICATIONS OF PRODUCTSANDCOMPANY

PRODUCT IDENTIFICATION

Continuous Glass Fiber Products include Assembled Roving, Direct Roving, Dry Chopped Strands, Wet Chopped Strands, Woven Roving, Stitch Chopped Strand Mat, Powder Chopped Strand Mat, Emulsion Chopped Strand Mat, Stitch Combo Mat, Woven Roving Combo Mat, Glass Filament Yarn, Marketable Cake, Cut Strands,Texturized Roving andMilled Fiber.

MANUFACTURER INFORMATION:

JUSHI GROUP CO., LTD.

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

FAX:

Customer Service: +86-573-88181388

International Sales: +86-573-88181058

Domestic Sales: +86-573-88136222

COMPANY EMERGENCY TELEPHONE : (8:30-16:40 InBeijng, 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(India) FRP Accessories Private Limited

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

PHONE: 0091 022 40234401/2/3/4/5

FAX: 0091 022 40234401

E-mail: divyesh@jushifrp.com

Jushi Korea Co., Ltd

Rm No. 2003, Hyundai41Tower, 917-9, Mok-dong, Yangcheon-gu, Seoul, 158-723, Korea

PHONE: 0082 2 21683288

FAX: 0082 2 21683286

Email: sj.lee@jushikorea.com

JUSHI SINGAPORE PTE. LTD

10 UBI CRESCENT, #05-70 (LOBBY D)UBI TECHPARK, SINGAPORE 408564

PHONE: 0065 67425118

FAX: 0065 6742 7108

E-mail: hsseng@jushi.com

Jushi Japan Co.,Ltd

EisenBlad, 5F1-6-3, YurakuchoChiyoda Tokyo, Japan

PHONE: 0081 3 62688508

FAX: 0081 3 35028080

Email: m_hitomi@Jushijapan.co.jp

Jushitaly SRL

VIA ADIGE 10/12 21043 CASTIGLIONE OLONA (VA)

PHONE: 0039 0331857918

FAX: 0039 0331825521

E-mail: lydiazheng@jushi.com; essebi@jushiitalia.it

JushiSpain, S.A.

Avd. de Barajas, 24. Planta 2. (Edificio Gamma, ParqueEmpresarial Omega). C.P 28108.

Alcobendas (Madrid) Spain

PHONE: 0034 917678817

FAX: 0034 917678818

E-mail: nicanor.amor@jushispain.com

JUSHI France SAS

65 RUE DU DAUPHINE 69800 SAINT-PRIEST France
 PHONE: 0033 4 72 78 20 48/33 (0) 4 7278 20 62
 FAX: 0033 4 72 78 20 41
 E-mail: fabrice.bani@jushi.fr

JUSHI USA

4982 4th Street Irwindale,CA 91706 U.S.A.
 PHONE: 00626 960-2038
 FAX: 00626 960-2037
 E-mail: william.woo@jushiusa.com

Jushi Canada Glass fiber Co., Ltd.

Markham, TorontoCanada
 PHONE: 001 9054777628
 FAX : 001 9054776047
 E-mail: a.gardiner@jushicanada.com

Jushi Group Sinosia SA Composite Materials

4/65 Nerl Hare Road,Atlantis Industrial7350,Capetown, South Africa
 PHONE: 0027 21 5772747/00852 2541 1114
 FAX: 0027 21 5772727
 E-mail: w_w9@mweb.co.za/ info@jushisinosa.co.za

HELM AG Hamburg

NordkanalStrasse 28 D-20097 HamburgGermany
 PHONE: 0049 40 2375 1330
 FAX: 0049 40 2375 1845
 E-mail:e.kloev Korn@helmag.com

If you are not able to reach the above phone numbers, please call the company emergency number.

SECTION 2 – HAZARDS IDENTIFICATION

With regard to their composition, these products are articles and not classified as hazardous according to European Directive 67/548/EEC and 99/45/EC and ST/SG/AC.10/30/Rev.2 and their latest amendments.

Glass Fiber products do not contain hazardous substances which can be released under normal or reasonably foreseeable conditions.

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.

This product is no classified hazardous according to European Regulation No.1272/2008.

This section identifies the potential hazards related to the article i.e. its shape, its dimensions and other physical characteristics.

SECTION 3 – COMPOSITION / INGREDIENTS INFORMATION

Product Composition:

Product Name	Glass, %	Sizing, %	Binder, %	Water, %
Assembled Roving	98.75 ± 0.75	1.05 ± 0.75	/	≤ 0.20
Direct Roving	99.28 ± 0.58	0.62 ± 0.48	/	0.10 ± 0.1
Dry Chopped Strands	99.08 ± 0.82	0.82 ± 0.75	/	≤ 0.10
Wet Chopped Strands	89.90 ± 2.10	0.10 ± 0.10	/	10.0 ± 2.0
Flame Retardant Fiber Glass	99.08 ± 0.82	0.82 ± 0.75	/	≤ 0.10

Product Name	Glass, %	Sizing, %	Binder, %	Water, %
Woven Roving	99.33 ± 0.53	0.57 ± 0.43	/	0.10 ± 0.1
Power Chopped Strand Mat	95.40 ± 2.95	0.85 ± 0.50	3.65 ± 2.35	0.10 ± 0.1
Emulsion Chopped Strand Mat	94.85 ± 1.80	0.85 ± 0.50	4.20 ± 1.20	0.10 ± 0.1
Glass Filament Yarn	98.90 ± 0.30	1.00 ± 0.20	/	0.10 ± 0.1
Cut Strands	88.50 ± 3.50	/	/	11.5 ± 3.5
Marketable Cake	99.45 ± 0.25	0.45 ± 0.15	/	0.10 ± 0.1
Texturized Roving	99.55 ± 0.35	0.35 ± 0.25	/	0.10 ± 0.1
Milled Fiber	98.98 ± 0.82	0.82 ± 0.75	/	≤ 0.20

CAS No.:

Glass Fiber: 65997-17-3

Sizing: N/A

Sizing :

Sizing is a mixture of chemicals applied to the strand surface. It mainly consists of high-molecular polymers of no reactivity (usually natural ingredients, such as starch) which are not listed in the appendices of EINECS or ELINCS.

In some cases, sizing may also contain substances of organic-silane family or other substances. The manufacturer considers this risk as negligible as, even though listed as hazardous substance, their concentration is extremely low (under 0.1% of total weight) and they are polymerised during the production of glass fibers.

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 glass fiber to penetrate deeper. If glass fiber penetrates the skin, use a wash cloth to help pull out the glass fiber. Do not rub or scratch affected skin to any further any further deterioration. Please go to a doctor if irritation increases. Make sure to refrain from using compressed air to remove glass fiber from skin.

Eye Contact:

Immediately flush eyes with clean water for at least 15 minutes. Please go to a doctor if irritation increases.

Inhalation:

Immediately move to fresh air. Please go to a doctor if irritation increases.

Ingestion:

Normally, ingestion is less than likely. If it does occur, keep the person under observation for several days to make sure that no gastrointestinal disturbance occurs. Do not induce vomiting unless required by medical staff. Please go to a doctor if irritation

increases.

SECTION 5 – FIRE-FIGHTING MEASURES

Continuous glass fiber products are neither flammable nor incombustible.

Only the sizing and the packing materials are combustible and could release small quantities of hazardous gas in case of major and prolonged heat or fire.

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 should use self-contained breathing apparatus and wear full protective gear.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid contact with the skin and the eyes.

Environmental precautions:

Prevent further leakage or spillage if safe to do so.

Methods for Clean-up:

- a) Pick up and transfer to properly labeled containers.
- b) Avoid dry sweeping.
- c) Shovel the major part of spilled material into a container.
- d) Use an industrial vacuum cleaner with a high efficiency filter to clean up dust and residual spilled material.
- e) After vacuum cleaning, flush away with water.

SECTION 7 – HANDLING AND STORAGE

Handling:

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

Storage:

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

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Continuous glass fibers are not respirable. However, certain mechanical processes might generate airborne dust or fibers. The occupational exposure limits below mentioned are applicable to airborne fiber exposure and/or to dust exposure.

Exposure limits:

NOTE: The user of continuous glass fibers products has to comply with the national regulations on occupational health protection. Occupational exposure limit values in

some European countries are illustrated as below. (8-hour work day)

	Respirable dust	Total Dust	RespirableFiber
ACGIH	3 mg/m ³	10 mg/m ³	1fiber/ml
Austria	6mg/m ³	/	0.5fiber/ml
Denmark	5 mg/m ³	10 mg/m ³	1fiber/ml
Finland	/	10 mg/m ³	1fiber/ml
France	/	10 mg/m ³	1fiber/ml
Germany	3 mg/m ³	4 mg/m ³	0.25fiber/ml
Ireland	5 mg/m ³	/	2fiber/ml
Italy	3 mg/m ³	10 mg/m ³	1fiber/ml
Netherlands	2 mg/m ³	10 mg/m ³	1fiber/ml
Norway	5 mg/m ³	10 mg/m ³	1fiber/ml
Portugal	/	4 mg/m ³	1fiber/ml
Spain	3 mg/m ³	10 mg/m ³	1fiber/ml
United Kingdom	5 mg/m ³	10 mg/m ³	2fiber/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 – PHYSICAL 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:>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:

Glass fiber is an inorganic nonmetal material and is used for plastic reinforcement, acoustic absorption and insulation.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal conditions.

Materials to Avoid:

None.

Conditions to Avoid:

None.

Possibility of Hazardous Reactions:

Hazardous reaction does not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity:

None.

Local Effects:

Dusts and fibers may cause irritation to eyes and skin. The irritation disappears when the exposure ceases. Inhalation may cause coughing, nose and throat irritation and sneezing. High exposures may cause difficult breathing, chest distress and congestion. Mechanical irritation is not considered as a health hazard under the European directive 76/548/EC on hazardous substances. It is required to classify continuous glass fibers as an irritant under the European directive 97/69/EC.

Long Term Health Effects:

The International Agency for Research on Cancer (IARC), agency of the World Health Organization (WHO), has determined that glass fiber is a non-carcinogenic material because the evidence is inadequate to prove that glass fiber can cause humans and experimental animals to develop cancer.

Continuous glass fibers do not possess cleavage planes which would allow them to split length-wise into fibers with smaller diameters, rather they break across the fiber, resulting in fibers which are of the same diameter as the original fiber with a shorter length and a small amount of dust.

Continuous glass fibers are not carcinogenic. (See section 15)

SECTION 12 – ECOLOGICAL INFORMATION

Glass fiber products are not listed as a material harmful to animals, plants and fish. No specific data available for glass fiber products at present.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA Hazard Class:

Non-Hazardous.

European code number for waste is 101103.

Disposal Instructions:

Dispose waste materials as per local environmental regulations.

SECTION 14 – TRANSPORT INFORMATION

IMDG/IM-RID-ADR-ICAO-IATA-DOT-TDG-MEX

Not regulated

Transport Instructions:

Rolling and moisture should be avoided in transit.

SECTION 15 – REGULATORY INFORMATION

This product is not hazardous according to European Directive 99/45/EC, 67/548/EEC and their latest amendments.

Information on Non-carcinogenicity:

According to EU Directives, the continuous glass fibers in these products are not classified as carcinogenic.

Continuous glass fibers are not within the scope of Amendment 97/69/EC of Directive 67/548/EEC since they are not “fibers with random orientation”.

The International Agency for Research on Cancer (IARC) categorized continuous glass fiber as not classifiable with respect to human carcinogenicity (Group 3) in June 1987 and October 2001. The evidence from human, as well as, animal studies was evaluated by IARC as insufficient to classify continuous glass fiber as a confirmed, probable or even possible cancer causing material.

National Chemicals Inventory

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 the products are produced.

However, continuous 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: February 2016

Prepared by: QA&EHSDept

Data Verified by: Vice President of Jushi Group

Modification Information: The Five Version, The First modification

This document has been issued to align with REACH Regulation.

Disclaimer

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of accuracy 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.
