



MATERIAL SAFETY DATA SHEET

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Conforms to REGULATIONS (EC) No 1907/2006 (REACH),
(EC) No 1272/2008[CLP/GHS], (EU) No 453/2010.

Date of issue/Date of Revision 27/07/2015

SECTION 0: Introduction

Continuous Glass fiber products are articles under EU regulation (REACH&CLP), US regulation (TSCA) and Japanese Regulation and therefore, no MSDS is legally required. JSC "Valmiera glass" decides to continue to provide our customers for assuring the safe handling and use of continuous glass fiber products. This MSDS was revised in accordance with GHS.

SECTION 1: Products and Company Identification

Name of product: Fiber E-Glass Continuous Filament

Products description: Article

Other means of identification: E- GLASS FIBRE
TEXTILE YARNS
PLIED YARNS
VOLUMINIZED PRODUCTS
TEXTURIZED PRODUCTS
TEXTILE YARN BEAMS
GLASS FABRICS
GLASS FIBRE FELTS

These general names are followed by a code number on JSC "Valmiera Glass" product packing.
This material safety data sheet is valid for all these products.

Recommended use: Industrial applications

Manufacturer: JSC "Valmiera Glass"
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Valmiera, LV-4201
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SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Product definition : Article

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.



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Glass fiber and glass fiber articles does not contain any hazardous substances according to the RoHS - Directive 2002/95/EU.

Details about chemical hazards are given in Section 3.

Toxicological aspects are developed in detail in Section 11.

2.2 Label elements

Signal word : No signal word

Hazard statements : No known significant effects or critical hazards

Precautionary statements

Prevention : Not applicable

Response : Not applicable

Storage : Not applicable

Disposal : Not applicable

Supplemental label elements:

Not applicable

Annex XVII - Restrictions on manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:

Not applicable

Special packaging requirements

Containers to be fitted with child-resistant fastenings

Not applicable.

Tactile warning of danger

Not applicable.

2.3 Other hazards which do not result in classification:

Material is not an electrical conductor and may accumulate static charge.

SECTION 3: Composition / Information on ingredients

Substance / mixture: Article

Product/ ingredient name	Identifiers	%	Classification 67/548/EEC Regulation (EC) No.1272/2008 [CPL]		Type
Fibrous glass, continuous filament Binder/Sizing	EC: 266-046-0	> 97	Not classified	Not classified	[A]
	CAS: 65997-17-3	< 3	Not classified	Not classified	[C]
	Not available				

Type:

[A] Constituent

[B] Impurity

[C] Stabilising additive

Occupation exposure limits, if available, are listed in Section 8.



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SECTION 4: First Aid Measures

Description of first aid measures

- Eye contact:** Flush in running water (for at least 15 minutes) and consult if necessary a doctor.
- Inhalation:** Remove from the scene of exposure to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact:** Remove contaminated clothing and shoes. Wash copiously with lukewarm soapy water without rubbing excessively. If irritation persists, seek medical attention.
- 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 advice/attention.
- Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training.

SECTION 5: Fire-fighting Measures

- Suitable extinguishing agent:** Any of the extinguishing agents, including water, carbon dioxide gas, foam, dry chemicals and powder are effective. Select an extinguishing agent depending on circumstances (source of fire, etc.).
- Suitable extinguishing method:** Use any of the ordinary fire extinguishing methods.
- Other information:** Glass fiber itself is not combustible. But the binders or surface treating agents on glass fiber are generally combustible and give off little hazardous by-products other than carbon monoxide, carbon dioxide and water on combustion.

SECTION 6: Accidental release measures

- Personal precautions:** If necessary, wear a safety mask, safety gloves or safety goggles.
- Environmental precautions:** No special environmental precautions required.
- Clean up Method:** If spilled on the floor, clean quietly so that dust particles will not be dispersed and put into a container or bag. For disposal, treat it same as general industrial waste.

SECTION 7: Handling and Storage

Handling (Technical measures / Precautions / Safe handling advice):

It is preferable to avoid prolonged contact with the skin: wear gloves, garments with sleeves and long leggings or protective overalls, goggles and dust masks.

Glass filaments and dusts must be removed from work garments with a vacuum cleaner and not blown off with compressed air jets. Wash work garments separately from other clothes.

Storage:

Technical measures: respect the stacking procedure recommended for each type of product.

Storage conditions: store away from excessive humidity to prevent damage to the product and to the packing materials, which could lead to storage safety problems.

Incompatible material: not relevant.

SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure Limits:

Legal requirements for respirable and non-respirable dusts and fibres vary from country to country (or do not even exist). The table below (prepared using the knowledge we currently possess) shows the limits applicable in different countries for Time-Weighted Average (TWA) exposure.

Country	Dusts	TWA (Time-Weighted Average concentration) (mg/m ³ for 8 hours work)	Fibres	TWA (Time-Weighted Average concentration) (Fibres/ml for 8 hours work)
Austria	fine	6	total	0.5
Belgium	total	10	No regulation	
Denmark	respirable total	5 10	total	1
Finland	total	10	total	1
France	total	10	respirable	1
Germany	respirable	3	respirable	0.25
Great Britain	respirable total	5 10	respirable	2
The Netherlands	respirable total	2 10	total	1
Ireland	respirable	5	respirable	2
Italy	respirable total	3 10	total	1

Norway	respirable total	5 10	total	1
Portugal	total	4	total	1
Spain	total	10	total	1
Sweden	respirable total	5 10	total	1
Switzerland	total	6	respirable	0.5
USA	respirable total	5 (OSHA)* 15 (OSHA)*	total	1 (ACGIH)**
Japan	respirable total	2(JSOH)*** 8 (JSOH)***	total	3 (RPHDD)****

* OSHA = Occupational Safety and Health Administration

** ACGIH = American Conference of Governmental Industrial Hygienists

***JSOH = Japan Society for Occupational Health

**** RPHDD = Regulation on Prevention of Hazards Due and Dust of Japan

Equipment measures: Install localized ventilation units in workplaces where dusts are generated by cutting, grinding and so on, and powder products such as milled fibers are handled. If ventilation units can't be installed for some reasons, be sure to wear a dust mask (approved by the government) during work. It is also preferable to provide facilities for washing the face and the body, gargling, changing and washing clothes.

Protective gear: Use the following protective gear as necessary in view of the conditions in the workplace environment.

- **Respiratory protection:** Dust mask (approved by the government authorities: replaceable / one-way)
- **Hand protection:** Gloves such as leather which don't allow glass fiber to pierce
- **Eye protection:** Safety glasses (goggle type)
- **Skin and body protection:** Loose-fitting top garment with long sleeves and collar (tightened cuffs) and long pants (tightened at the ankles).

SECTION 9: Physical and chemical properties

Physical State	solid
Form:	continuous or chopped or mats of fibre made up of continuous, parallel filaments glued together.
Colour:	white or yellowish white
Odour:	Odourless.
Odour thresholh:	Not available.
pH:	Not applicable

Specific temperature at which changes in physical state occur:

Softening point: Littleton point (defined as the temperature for which the viscosity of glass is $10^{7.65}$ Poises): approximately 850°C.

Melting point: Not applicable. Glass does not melt, but the viscosity decreases by elevation of temperature and is 10^3 for E glass in a range of temperature between 1150°C and 1250°C (fiberizing temperature).



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Initial boiling point and boiling**range:**

Not available.

Flash point:

Not applicable. (Product does not sustain combustion)

Evaporation rate:

Not available.

Material supports combustion:

No.

Flammability (solid, gas) :

Not available.

**Upper/lower flammability or :
explosive limits:**

Not applicable.

Relative density:

2.65 to 2.7

Solubility(ies):

very low solubility in water. Sizes can be partially (and even totally) dissolved in most organic solvents.

Partition coefficient: n-octanol/**Water:**

Not available.

Auto-ignition temperature:

Not available.

Decomposition temperature:

only size products start to decompose at 200 °C

Viscosity:

Not applicable.

Explosive properties:

Not applicable.

Oxidising properties:

Not applicable.

SECTION 10:**Stability and Reactivity****Chemical Stability:**

The products are stable.

Possibility of**Hazardous reactions:**

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:

When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Incompatible materials:

None known.

**Hazardous decomposition
products:**In continuous combustion conditions, in addition to water vapour and CO₂, small quantities of CO and NO_x may be released from the combustion of the size. Other products may be released in limited quantities, depending on combustion conditions. This is why it is recommended to use high-temperature gas masks, when fighting intense fires (see paragraph 5).**SECTION 11:****Toxicological information****Acute toxicity:**

Not available

Irritation/Corrosion:

Not available

Sensitisation:

Not available

Mutagenicity:

Not available



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Carcinogenicity:	Not applicable. The International Agency for Research on Cancer (IARC) classes glass fiber into category 3 (No classification exists with regard to its carcinogenicity in humans.)
Reproductive Toxicity:	Not available.
Teratogenicity:	Not available.
Specific target organ toxicity (single exposure):	Not available.
Specific target organ toxicity (repeated exposure):	Not available.
Aspiration hazard:	Not available.

Handling glass fibres

When glass fibres are chopped, milled or sanded they are cut perpendicular to strand length and no smaller diameters filaments are generated. Conversely, significant quantities of dust can be generated, which is why it is recommended to use personal protection.

In dusts, also present in some products (chopped strands, milled fibres), some studies have shown very low quantities of particles with fibrous aspects ($l/d > 3$), short (but nevertheless longer than 5 μm) and with an apparent diameter of under 3 μm . Quantities measured in work atmospheres are 50 to 100 times lower than all the limits fixed for respirable fibres, but when there is a high risk of dust generation it is strongly recommended to wear masks.

SECTION 12: Ecological information

Toxicity:	Not available.
Persistence and degradability:	Not available.
Bioaccumulative potential:	Not available.
Mobility in soil	
Soil/water partition coefficient (KOC):	Not available.
Mobility:	Not available.
Results of PBT and vPvB assessment	
PBT :	No.
vPvB :	Not available.
Other adverse effects:	No known significant effects or critical hazards.

SECTION 13: Disposal considerations

Waste treatment methods

Product:	Depending on local regulations, glass fibre wastes can either be considered as inert waste or as common industrial waste . The generation of waste should be avoided or minimised wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. As such they can be buried in landfills approved for these categories. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental
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Packaging:

protection and waste disposal legislation and any regional local authority requirements.

Clean cardboard, wood, plastic (film or bags) and packaging can be eliminated in units specific to these products (i.e. for recycling or use as fuels).

SECTION 14: Transport information

	ADR/RID	AND	IMDG	IATA
UN number	Not regulated	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-	-
Transport Hazard class	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.
Additional information	None identified	None identified	None identified	None identified

Special precautions for user: Transport within user's premises - always transport in closed containers that are upright and secure.

SECTION 15: Regulatory Information

Continuous glass fiber is not classified as a "Dangerous Substance" or "Dangerous Preparation" according to EU-Directives 67/548/EEC, 1999/45/EC and amendments. Continuous glass fiber complies with all other national or local regulations regarding the use, transport, recycling, reuse, or disposal. Glass fiber is considered an article and is exempted from requirements of TSCA, REACH, EINECS, DSL, AICS, KECL and so on.

Existing registration of chemical substances in the major countries:

- Registration, Evaluation, Authorization and Restriction of Chemicals (REACH regulation in the EU)
 - EINECS No. Not applicable
 - CAS No. Not applicable
- European Inventory of Existing Commercial Chemical Substances
 - EINECS No. 266-046-0
 - CAS No. 65997-17-3
 - Registered names: Glass, oxide, chemicals
- Inventory of Toxic Substances Control Act (TSCA) in the US
 - CAS No. 65997-17-3
 - Registered names: Glass, oxide, chemicals
- Current chemical substances registration in China
 - CAS No. 65997-17-3
 - Registered names: Glass, oxide, chemicals
- Domestic Substance List in Canada



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CAS No. 65997-17-3

Registered names: Glass, oxide, chemicals

- Australian Inventory of Chemical Substances in Australia

CAS No. 65997-17-3

Registered names: Glass, oxide, chemicals

- Korean Existing Chemicals List in Korea

CAS No. 65997-17-3

Korean Existing Chemicals Inventory KE-17630

Registered names: Glass, oxide

SECTION 16:

Other Information

This Material Safety Data Sheet is in addition to the Product Specification file and other technical documents issued by JSC “Valmiera Glass”, but does not replace them.

The information given by this document is based on the best knowledge at the shown. It is given in good faith. Furthermore, user attention is drawn to the possible risks run when the product is used for any purpose other than the one for which it was designed.

This MSDS does not exempt users from knowing and applying the rules regulating their activities. Users assume full responsibility for applying the appropriate safety measures when the product is used.

For all additional information, users should contact their local JSC “Valmiera Glass” agent or the main supplier office at JSC “Valmiera Glass”.