



# Material Safety Data Sheet


according to regulation (EG) no. 1907/2006

This MSDS is valid for  
**E-glass products**  
**-untreated-**  
revised on : 01.09.2008  
printed on: 02.03.2010

## 01 Description of the material/ formulation and company designation

**Trade mark:** E-glass products, untreated

**Application of the material / of the formulation:** manufacturing of technical textile nettings, knitted fabrics, fabrics or nonwoven fabrics;  
application for thermal, acoustical and electrical insulations

**Manufacturer/ Supplier:**   
Textilglas-Technologie GmbH & Co. KG  
Max-Planck-Strasse 15 – 19  
DE-49593 Bersenbrück  
phone. : +49 (0)5439 9416-0  
fax. : +49 (0)5439 9416-10

**Contact for technical information:** quality management  
Herr Diederik Cuyllits  
dcuyllits@culimeta.de

## 02 Mögliche Gefahren

**Description of the risks:** E-glass products –untreated– are not dangerous and do not need special labelling.

**Additional information on risks for humans and environment:** realized reactions are:  
- mechanical irritations  
- respirable dust  
- rarely appearance of allergies

## 03 Composition/ component information

**Chemical characteristics:** The basic material of E-glass products are E-glass threads made of endless filaments and a size. (CAS-no.: 65997-17-3)  
**Our products made of endless glass fibres are** articles according to REACH (EV no.1907/2006) and are therefore **not dangerous**.  
According to the regulations 67/548/EEC and the American standard TSCA (Toxic Substances Control Act), textile E-glass is not a substance but a product made of E-glass in form of continuous glass fibres and a size.  
E-glass is a glass with a low alkalinity. The composition (stated in oxides) shows the following percentages:

SiO <sub>2</sub>	52-68%	Al <sub>2</sub> O <sub>3</sub>	12-16%
Na <sub>2</sub> O, K <sub>2</sub> O	0-2%	TiO <sub>2</sub>	0-0,8%
CaO	16-25%	Fe <sub>2</sub> O <sub>3</sub>	0,05-0,4%
MgO	0-5%	F <sub>2</sub>	0-1%
B <sub>2</sub> O <sub>3</sub>	5-10%		

Die Daten geben den aktuellen Kenntnisstand nach bestem Wissen wieder. Sie sollen unsere Produkte im Hinblick auf Sicherheitserfordernisse beschreiben, haben aber nicht die Bedeutung, bestimmte Produkteigenschaften zuzusichern. Die technischen Vorgaben für die Verarbeitung sind exakt zu beachten und die sicherheitstechnischen Aspekte in vollem Umfang zu berücksichtigen.

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**Dangerous ingredients:**

CAS-no.	component	hazard code	percent by weight
65997-17-3	glass fibre	not applied	98,5 – 99 %
not indicated	size	not applied	1 – 1,5 %

**Materials with prescribed EC limited values:** -----

**04 First Aid**

**General information:**

**after inhaling:** wearing protective masks, in case of emergency remove from working place

**skin contact:** do not rub, wash with soap and luke-warm water

**eye:** do not rub, flush eyes with clear water for about 10 minutes

**after swallowing:** irrelevant

**information for the doctor:** no specific medical measures required

**05 Fire – fighting information**

**Applicable extinguishing device:** spray (water) or powder

**Inapplicable extinguishing device:** ----

**Special hazard caused by the material, formulation, combustion products or resulting gas:** ----

**Special protective equipment during the fire-fighting:** In case of a fire there will occur densely black dust because of the organic components of the impregnation. Mainly carbon dioxide and water vapour are emerging gases of combustion. There might appear small quantities of carbon monoxide and other substances which would require, in case of a major fire, the application of protective devices.

**Additional information:** The pure glass fibres are not combustible. Only the packing materials and small quantities of the impregnation could be combustible.

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### 06 Measures to be taken in the event of involuntary release

<b>Individual-related precautions:</b>	see chapter 8 „PSA“
<b>Environmental precautions:</b>	The products do not release substances or materials which could be harmful to the environment. For this reason they can be handled as general industrial waste.
<b>Cleaning process:</b>	Mechanical waste disposal in the destined boxes.
<b>Additional information:</b>	----

### 07 Handling and storage

<b>Information on safe handling:</b>	Persons susceptible to irritations of the skin should avoid skin contact. Suited precautions are gloves, corresponding working sleeved clothes and long trouser legs, safety goggles and breathing masks in order to avoid the powder effect.
<b>Information on fire and explosion protection:</b>	----
<b>Additional information:</b>	Glass filaments and powders have to be removed from the working clothes with a vacuum cleaner. Do not blow away the filaments with a compressed air jet. Wash the working clothes separately from other cloth.
<b>Information on the storage:</b>	Adherence of the recommended stacking process for the product type. In order to avoid safety problems concerning the storage or damage of the packaging, the products should not be exposed to strong humidity.
<b>demands on storage boxes:</b>	----
<b>Special applications:</b>	----

### 08 Limitation and control of the exposure / personal protective equipment (PSA)

<b>Threshold for exposure at the working place and or biological tresholds:</b>	see following summary
<b>Thresholds of the working place (AGW) Germany:</b>	see following summary
<b>EU-working place tresholds:</b>	see following summary
<b>Limitation and control of the exposure:</b>	Use all suitable appliances (exhaustion, modification of the production process for the reduction of dust, etc.) in order to reduce the fibre concentration which could cause irritations.

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**A)** additional impact in mg/m<sup>3</sup> during 8 hours working time  
**B)** additional impact in fibre/ml during 8 hours working time

country	powder	A)	fibre	B)
Austria	fine	6	all-encompassing	0,5
Germany	respirable	6	respirable	0,25
Belgium	all-encompassing	10	no standard	
Denmark	respirable	5	all-encompassing	1
	all-encompassing	10		
Spain	all-encompassing	10	all-encompassing	1
Finland	all-encompassing	10	all-encompassing	1
France	all-encompassing	10	respirable	1
Great Britain	respirable	5	respirable	2
	all-encompassing	10		
Ireland	respirable	5	respirable	2
Italy	all-encompassing	10	all-encompassing	1
Norway	respirable	5	all-encompassing	1
	all-encompassing	10		
Netherlands	respirable	5	all-encompassing	1
	all-encompassing	10		
Portugal	all-encompassing	4	all-encompassing	1
Sweden	respirable	5	all-encompassing	1
	all-encompassing	10		
Switzerland	all-encompassing	6	respirable	0,5
USA	all-encompassing	5	all-encompassing	1

### Personal protective equipment

#### **Breathing:**

We recommend to wear a breathing mask if there is a high impact of dust according to the EEC regulation. Use in either case an approved FP1 or primarily a FP2 breathing mask. It is possible to use for example respirators of type no.: 3M 8710 or 3M 9900 which are authorised from the American National Institute for Occupational Safety and Health (NIOSH).

#### **Hands:**

gloves

#### **Eyes:**

safety goggles (or mask)

#### **Body:**

Use long-sleeved clothing in order to avoid irritations. People susceptible to irritations of the skin should use skin care products.

#### **Information on work hygiene:**

Please notice the general principles of the working hygiene TRGS 521 – powder of fibres – for fibres with the diameter >3µm which could be released or occur during the manufacture.

#### **Environmental protection measures:**

----

## 09 Physical and chemical properties

### Sate

<b>Form:</b>	stable
<b>Colour:</b>	white or yellowly white
<b>Odour:</b>	inodorous

### Safety data

<b>Explosion hazard:</b>	none
<b>Lower explosion limit:</b>	----
<b>Upper explosion limit:</b>	----
<b>Steam pressure:</b>	none
<b>Density:</b>	~2,61 g/m <sup>3</sup> (melted glass)
<b>Flow time:</b>	----
<b>Solubility:</b>	Small solubility in water. Sizes could partially (and also completely) be solubilised in most organic solvents.
<b>Content of pH:</b>	none
<b>Boiling point:</b>	---- <i>information:</i> softening temperature ~ 850° C . Glass is not melting but the viscosity is reduced because of the temperatur and amounts to 10 <sup>3</sup> for E-glass at a temperature between 1150°C and 1250°C stringing temperature. Merely the products with a size are starting to decompose at 200°C.
<b>Flame point:</b>	none
<b>Inflammation point:</b>	----

## 10 Stability and Reactivity

<b>Conditions to be avoided:</b>	----
<b>Materials to be avoided:</b>	----
<b>Dangerous products of decomposition:</b>	There might be released during the combustion of the impregnation beside the water vapour and CO <sub>2</sub> also small quantities of CO. Depending on the conditions of combustion there might be released light quantities of other products. Therefore we recommend to wear gas masks during a fire.

## 11 Toxicological Data

**Toxicological checking:**

*acute toxicity:* none

*local impact:* temporarily irritations

The irritations are of mechanical art and temporarily. They could affect the skin, eyes and the upper respiratory tracts. The impact will stop after removing from the working place. According to the 67/548/EEC standard you do not need a classification, because glass filaments according to 97/69/EC standard do not need a special code Xi (irritant).

*sensitisation:* infrequently possibility of allergies  
There might appear allergies.

*carcinogenic*

E-glass filaments are not respirable because the diameter of the filaments amounts to more than 3 µm – mostly bigger than 10 µm - and the powder size is even during a strong mechanical stress about 5 µm. The length-diameter ratio amounts according to the directions of the OMS (Organisation Mondiale de la Santé) to more than 3.

*detailed information on the carcinogenicity*

The European Commission accepted the standard 97/69/EC, edition 1997, directive 67/548/EEC, whereby glass fibres are no hazardous materials and do not need a special classification, packaging or labelling. The Member States released this directive in their national law.

**Practical experience:**

If glass filaments are cut, powdered or emerised they are cut vertical at the thread length and there are no filaments with a small diameter. However, there could result an important quantity of dust. Therefore we recommend to wear a personal protective equipment.

**Information on the ingredients:**

Glass filament sizes do not contain PCB (polychlorinated biphenyl) or other polyaromatical products of this type.



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**12 Information on environmental protection**

<b>Ecological toxicity:</b>	textile glass fibres are ecologically unobjectionable
<b>Mobility:</b>	----
<b>Persistence and degradability:</b>	E-glass is not biodegradable. Sizes are organic materials which could only slowly and partially be decomposed because of natural agents as e. g. water. Since the concentration of the components used in the composition and the solubility of the components is very low and is considered as not dangerous, glass yarns do not have any negative ecotoxicologically impacts.
<b>Biological accumulation capability:</b>	----
<b>Result of the evaluation of the PBT (persistent, biological accumulating, toxic) -properties:</b>	----
<b>Further harmful properties:</b>	----

**13 Information on disposal**

<b>Material/ formulation:</b>	E-glass products made of continuous or cut glass fibres, conglutinated filaments
<b>Recommendation:</b>	Glass filament disposal can be treated as inactive disposal or as general industrial waste. Glass filament disposal can not be destroyed by combustion and could damage the combustor because of the generation of a glass-like mass.
<b>Waste code according to the list of wastes-regulation (AVV):</b>	EAK 101103
<b>Packaging / polluted packaging:</b>	Law for the promotion of the circular flow economy and assurance of the ecological waste disposal. [Closed Substance Cycle Waste Management ActKrW -AbfG from 27.09.1994, revised by law from 12.09.96 (BGBl S. 1354)].

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## 14 Angaben zum Transport

### Road transport

**Classification:**                      **class:**                      n.a.                      **no. of hazardous goods:**                      n.a.  
**UN-number:**                      n.a.                      **classification code:**                      n.a.

**Description of the goods:**

**Source of hazard:**                      E-glass products are according to the transport regulations no hazardous goods.

**Packaging:**                      **packaging group:** n.a.                      **hazard label:**                      --

**Limited quantity:**

### Sea transport

**Classification:**                      **IMDG-code:**                      n.a.                      **EmS:**                      n.a.  
**UN-number:**                      n.a.                      **marine pollutant:**                      n.a.

**Description of the goods:**

**Source of hazard:**                      E-glass products are according to the transport regulations no hazardous goods.

**Packaging:**                      **packaging group:** n.a.                      **hazard label:**

### Air transport

**Classification:**                      **class:**                      n.a.                      **UN-number:**                      n.a.

**Description of the goods:**

**Source of hazard:**                      E-glass products are according to the transport regulations no hazardous goods.

**Packaging:**                      **packaging group:** n.a.                      **hazard label:**                      --

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**15 Regulation**

material safety evaluation:

Labelling according to EC directive

**Code letter(s) and hazard information of the product:** Off-white glass fibre products made of continuous glass filaments do not need to be signed as hazardous goods.

**Special labelling regarding hazardous components:** ----

**EU regulations:** ----

National regulations

**hazard water code:** WGK 1 (textile glass fibres are according to attachment 1 of the administration regulation „hazard water code“ not hazardous regarding water (code number 765).

**Technical instructions (TI-air):** ----

**Statutory order on hazardous incidents (12.BimSchV):** ----

**Statutory order on solvents (31.BimSchV):** ----

**Employment restriction:** ----

**16 Further information**

**further applicable EU-regulations:** ----

**application restrictions recommended by the manufacturer:** The application temperature of products stated in this material safety data sheet amounts to 450° C maximum.

**hazard codes concerning part 2 and 3:** ----

**General information:** food products: The compatibility of pure glass filaments concerning food products is defined in attachment III of the European Regulation 90/128/CEE and the recent modification 96/11/CE dated 05.03.1996 as the one of plastics additives. If the products made by Culimeta do have contact with foodstuffs, there has to be made a case study. Because the size products should be stated in the valid register for approved products of the EU, the BGVV LII register in Germany or the Food and Drugs AdministrationList (FDA) in the USA.

**This Material Safety Data Sheet has been made according to the EU-Regulation standards (EG) no. 1907/2006 (REACH). Due to the stepp by stepp introduction of REACH and the continuing information along the supply chain it is possible that the data contents of this Material Safety Data Sheet will be modified!**

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