



## SAFETY DATA SHEET

Date Issued : 09/28/2012  
Date Revised : 12/02/2020

### TEMPMAT

#### 1. PRODUCT IDENTIFICATION

**DISTRIBUTOR:**  
GLT PRODUCTS  
6810 COCHRAN ROAD  
SOLON, OH 44139

**EMERGENCY PHONE**  
CHEMTEL: 800-255-3954

**INFORMATION PHONE:**  
800-874-1748

#### 2. HAZARD IDENTIFICATION

CLP rule is not applicable for the following products.

Glass yarns for textiles are **not significantly hazardous**.

Details regarding chemical hazards are given in Chapter 3. Toxicological aspects are described in detail in Chapter 11. It should be highlighted that the diameter of continuous glass filament fibres are higher than 3 µm and therefore above the respirable range of 3 µm or less, thus minimising the potential for any chronic pulmonary effects associated with exposure to these fibres. The irritation caused by these fibres is a simple mechanical one, which can be controlled by good industrial hygiene practices.

Hazards identified are:

- mechanical irritation (itching)
- the formation of respirable filaments
- extremely rare possibilities of allergy.

#### 3. COMPOSITION - INFORMATION CONSTITUANT PARTS

Glass yarns for textiles are basically sold as:

<b>E-GLASS FIBRE</b>	<b>TEXTURIZED PRODUCTS</b>
<b>TEXTILE YARNS</b>	<b>TEXTILE YARN BEAMS</b>
<b>PLIED YARNS</b>	<b>GLASS FABRICS</b>
<b>VOLUMINIZED PRODUCTS</b>	<b>E-GLASS CHOPED STRANDS</b>
<b>GLASS FIBRE FELTS</b>	

**The following material safety data sheet is valid for all above mentioned products.**

Glass fibres can be considered as ARTICLES, as fibres are defined as articles in the manual of decisions for implementation of the sixth and seventh amendments to Directive 67 /548/eec on dangerous substances (EU Directives 79/831/eec and 92/32/eec) or in the USA by the American TSCA (Toxic Substances Control Act) or EPA 40 CFR 710.2 and also some other national regulations (DSL in Canada for instance).

These articles are E GLASS in the form of continuous strands and a SIZE. The CAS number of glass fibre is 65997-17-3 (corresponding to the oxides used for production).

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E GLASS is a glass with a very low alkaline content. Its composition (expressed in oxides) is within the following percentages:

SiO <sub>2</sub>	50.8-54%
Alkaline Oxides (Na <sub>2</sub> O, K <sub>2</sub> O)	max 1%
CaO	21-24%
MgO	max 2%
B <sub>2</sub> O <sub>3</sub>	6-10%
Al <sub>2</sub> O <sub>3</sub>	13-15%
TiO <sub>2</sub>	max 0.8%
Fe <sub>2</sub> O <sub>3</sub>	max 0.5%
F <sub>2</sub>	0-1%

**SIZE** is a mixture of chemicals applied to the glass strands in a maximum quantity of 3% - more generally between 1 % and 1.6% by weight.

Most of this mixture is made up of basically non-reactive high molecular weight polymers, often natural ingredients (starches) with no reactive sites, which are not listed as substances in the 1981 European Inventory of Existing Commercial Substances (EINECS) nor in the ELINCS appendices (European List of Notified Chemical Substances) and are generally exempt from registration on the American TSCA lists.

In some cases, sizes are prepared from polymers with reactive sites or containing reactive monomers included in these lists. Most of the reactive sites are polymerised during the manufacturing process of E glass yarns. However a very small reactivity may remain which justifies the precautionary measures listed in Chapter 8 below.

A second type of ingredient (sometimes present in almost all sizes) is a member of the organo-silane family. These products account for less than 0.05% of the final weight of sized E glass. These products are included in lists of products requiring "hazardous product" labelling in a pure state (for example in Europe R23/25 toxic if swallowed or inhaled, R21 harmful in contact with the skin, R36 irritant for the eyes).

The manufacturer considers this risk as negligible as, although listed as dangerous products, the concentration is extremely low and they are polymerised during the production of E glass fibres.

Other products can be used in sizes often acting as lubricants. Usually the content is extremely low (under 0.1 % of total weight) and as a general rule such products are not on the dangerous product list or, as they have reacted, any possible risk has been reduced.

If so requested by medical authorities, the Chemical Abstract Service (CAS) reference numbers for the ingredients used for a given size or binder can be communicated but must remain for the confidential use of medical authorities.

#### 4. FIRST AID

**INHALATION:** Remove from the scene of exposure to fresh air.

**SKIN CONTACT:** Wash copiously with lukewarm soapy water without rubbing excessively.

**EYE CONTACT:** Flush in running water (for at least 10 minutes) and consult a doctor if necessary.

#### 5. FIRE FIGHTING

In case of fire, glass fibres are not flammable, are incombustible and don't support combustion.

Only the packaging (plastic film, paper, cardboard, wood) and the small amounts of size or binder are likely to burn. Combustion gases are basically carbon dioxide and water vapour. There may be small quantities of carbon monoxide and other unidentified substances, which make it necessary to use protective devices in the event of a major fire.

**RECOMMENDED EXTINGUISHING MEDIA:** Water or chemical powder.

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**PERSONAL PROTECTION:** See Chapter 8.

**ENVIRONMENTAL PROTECTION:** In leaching tests glass fibre wastes did not emit any significant quantities of dangerous products and they can therefore be considered as **Inert Industrial Wastes**, or even **Common Industrial Wastes**, as defined by national and local regulations. All waste and scrap materials should be disposed of in accordance with applicable national, federal, state and local regulations (see paragraph 13).

**CLEANING:** Vacuum clean, sweep or shovel into containers normally used for glass fibre waste (selective collection).

**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.

**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

**TECHNICAL MEASURES:** Use every appropriate means (suction, modification of manufacturing methods to reduce fibre dust) to try to reduce the concentration of fibres likely to cause irritation.

**TEST PARAMETERS:** Test ambient atmospheres in which glass fibre is used regularly to determine levels of

- "non-respirable" and "respirable" filaments
- "non-respirable" and "respirable" dusts.

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.

It is recommended to identify the chemical nature of the fibres found in working atmospheres correctly, in particular in insulation wools and mineral fibres like asbestos, which are sometimes present and can be confused with continuous glass strands.

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Country	Dusts	TWA (Time-Weighted Average concentration) (mg/m <sup>3</sup> 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)**

\* OSHA = Occupational Safety and Health Administration

\*\* ACGIH = American Conference of Governmental Industrial Hygienists

**PERSONAL PROTECTION EQUIPMENT:**

**RESPIRATORY PROTECTION:** During occasional operations releasing high quantities of dust, wear minimum FP 1 or preferably FP2 EEC approved dust masks. Type 3M 8710 or 3M 9900 respirators approved according to American National Institute For Occupational Safety and Health (NIOSH) directives can be used, for example.

**PROTECTION OF HANDS AND OTHER EXPOSED PARTS OF THE BODY:**

Gloves for the hands, long-sleeved garments and long leggings to prevent irritation.  
People with delicate skin should apply barrier cream to exposed skin areas.

**EYE PROTECTION:** Safety goggles (or masks) or safety glasses.

**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:** None.

**PH:** Not applicable.