


CAM ELYAF SANAYİİ A.Ş.	<b>SAFE USE INSTRUCTIONS SHEET</b> For Continuous Filament Glass Fiber Products	 ŞİŞECAM
Document No. : CE-SUIS-1 Issue Date : 11.10.2010	According to : 1907/2006 /EC (REACH Regulation) Revision Date : -	Revision No. : 0

## Section 0. INTRODUCTION

The European Union Regulation (EC) No. 1907/2006 (REACH) enforced on June 1<sup>st</sup>, 2007 and this regulation does only require Material Safety Data Sheet (MSDS) for hazardous substances and preparations. Our continuous filament glass fiber (CFGF) products are **articles** under REACH Regulation. Hence MSDS is not legally required.

Cam Elyaf San. A.Ş. intends to provide our customers with the appropriate information for assuring the safe handling and use of glass fiber products through a **Safe Use Instruction Sheet**.

## Section 1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

### 1.1 Identification of Substance or Preparation

- a. Generic Product Name** : Continuous Glass Fiber Products  
**b. Common Names** : Dry chopped strands, Wet chopped strands, Direct roving, Assembled roving, Chopped strand mat (wet and dry)

**1.2 Recommended Uses** : Continuous Filament Glass Fiber products are mainly used for plastic reinforcement

### 1.3 Company / Undertaking Identification :

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## Section 2. HAZARD IDENTIFICATION

In this section the potential hazards related to the article i.e. its shape, its dimensions and other physical characteristics are identified. These can be mechanical irritation (itching) and exposure to airborne dusts and fibers (inhalation). There is no objective evidence that glass fiber causes cancer or non malignant respiratory disease. (For detailed explanation see section 11 )

The glass fiber is not flammable.

## Section 3. COMPOSITION/ INFORMATION ON INGREDIENTS

From the point of REACH Regulation's view, according to article 3.3 continuous filament glass fiber (CFGF) products are articles. CFGF products are made of glass which is given a specific shape (filament) and dimension (filament diameter). A surface treatment (sizing) is applied to the filament which are gathered to form a strand. The strand is further processed into a specific product design according to the downstream use of the article. The sizing is a mixture of chemicals, i.e. film former, coupling agent and polymeric resin/emulsion. The sizing content is usually less than or equal to 2% .

For chopped strand mat (CSM) products, a binder is applied in a secondary step to form the mat. The binder (mixture of polymeric resin and surfactant) content is usually less than or equal to 10 % of the product weight.

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### Section 4. FIRST AID MEASURES

**Inhalation** : In case of upper respiratory tract irritation move to fresh air. If symptoms persist, seek medical attention.

**Skin Contact** : In case of irritation wash of immediately with soap and cold water. DO NOT use warm water because this will open up the pores of the skin, which will cause further penetration of the fibers. DO NOT rub or scratch affected areas. Remove contaminated clothing. If skin irritation persists, seek medical attention.

**Eye Contact** : Rinse immediately with plenty of water for at least 15 minutes. Do not rub or scratch eyes. If eye irritation persists, seek medical attention.

**Ingestion** : Ingestion of this material is unlikely . Seek medical attention .

### Section 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media** : No special extinguishing media.  
Water , carbon dioxide, foam and dry chemical are suitable.

**Special Exposure Hazard From Fire** : CFGF products are not flammable, are incombustible and do not support combustion. Only the sizing and/or binder are combustible and could release small quantities of hazardous gas in case of major and prolonged heat or fire. Primary combustion products of sizing and binder are carbon dioxide, carbon monoxide, other hydrocarbons and water.

**Protective Equipment and Precautions for Firefighters** : In a sustained fire, wear self-contained breathing apparatus(SCBA) and full fire fighting 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** : Pick up and transfer to properly labeled containers. Avoid dry sweeping. Shovel the major part of spilled material into a container. Use an industrial vacuum cleaner with a high efficiency filter to clean up dust and residual spilled material. After vacuum cleaning, flush away with water.

### Section 7. HANDLING AND STORAGE

**7.1 Handling** : Wear appropriate personal protective equipment in case of direct contact with the product. (See section 8). Prevent and/or minimize dust formation.

**7.2 Storage** : Keep product in its packaging until use to minimize potential dust generation.

### Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Continuous filament glass fibers are not respirable however certain mechanical processes might generate airborne dust or fiber (see section 11). The occupational exposure limits are given below which are applicable to airborne fiber exposure and/or to dust exposure.

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### 8.1 Exposure Limit Values

The user of CFGF products has to comply with the national regulation in terms of health worker protection. The American Conference of Governmental Hygienists (ACGIH) exposure limit values are given in the table below.

	Respirable Dust ( mg /m <sup>3</sup> )	Total Dust ( mg /m <sup>3</sup> )	Respirable Fiber ( fiber(s)/ml )
ACGIH	3	10	1

### 8.2 Exposure Controls

#### 8.2.1 Occupational Exposure Controls :

##### *Engineering Controls*

Local exhaust and/or general ventilation system should be provided to maintain low exposure levels. Dust collection system must be used in transferring operations, cutting or machining or other dust generating processes. Vacuum or wet clean-up methods should be used to remove fibers and dust from clothing. Sweeping or using compressed air should be avoided since these techniques resuspend dust and fibers into the air.

##### *Personal Protective Equipment*

- a. Respiratory Protection** : In situation where concentrations are above exposure limits, appropriate dust masks must be worn (FFP1 or FFP2 depending on the actual airborne concentration)
- b. Hand Protection** : Wearing protective gloves is recommended.
- c. Eye/Face Protection** : Wearing safety glasses with side shields is recommended.
- d. Skin Protection** : Wearing loose fitting, long sleeved clothing that covers the base of the neck and long pants is recommended .

##### *General Hygiene Considerations*

- Wash hands before breaks and immediately after handling the product.
- Avoid contact with skin, eyes and clothing.
- Avoid getting dust into boots and gloves through wrist bands and pant trucks.
- Remove and wash contaminated clothing before re-use.

**8.2.2 Environmental Exposure Controls** : No special environmental precautions required.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	: White or off-white
<b>Physical State</b>	: Solid
<b>Softening Point</b>	: >800 °C (pertains to bare glass)
<b>Melting Point</b>	: Non applicable
<b>Decomposition Temperature</b>	: Size and mat binders start to decompose at 200 °C
<b>Refraction Index</b>	: 1,5487 (pertains to bare glass)
<b>Relative Density</b>	: 2,6 (pertains to bare glass)
<b>Water Solubility</b>	: E glass is not soluble. The surface sizing and binder may be partially soluble in organic solvents .

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**Section 10. STABILITY AND REACTIVITY**

- Chemical Stability** : Stable under normal conditions.
- Hazardous Decomposition Products** : In a sustained fire, combustion gases evolve in very small concentrations as a result of thermal decomposition of sizing compounds (see section 5).
- Possibility of Hazardous Reactions** : Hazardous reaction does not occur.

**Section 11. TOXICOLOGICAL INFORMATION****Acute Toxicity** Not relevant**Local Effects**

These products are articles that do not represent a health hazard in their marketed form by inhalation, swallowing or skin contact. The fibers are of parallel orientation with a nominal diameter of above 10 µm and therefore they do not fall under the definition of the EU directive 97/69/EC (Annex I of directive 67/548/EEC).

During cutting, milling or other processing of these products, glass dust may be generated. Dust and fibers may cause mechanical irritation to eyes and skin. The irritation disappears when the exposure ceases. Mechanical irritation is not considered as health hazard in the meaning of European Directive 67/548/EC on hazardous substances. Hence continuous filament glass fibers do not require a classification as an irritant (Xi) under the European Directive 97/69/EC.

Inhalation may cause coughing, nose and throat irritation and sneezing. High exposures may cause difficult breathing, congestion and chest tightness. See exposure limits for respirable dust, total dust and respirable fiber given in section 8.

**Long Term Health Effects**

According to the World Health Organization (WHO) definition continuous filament glass fibers are not respirable . Respirable fibers have a diameter (d) less than 3 µm, a length (l) greater than 5 µm and a l/d ratio greater than or equal to 3. Fibres with the diameters greater than 3 microns do not reach the lower respiratory tract. Since the diameter of our continuous filament glass fiber is greater than or equal to 10 microns, there is no possibility of causing serious pulmonary disease.

Continuous filament glass fibers do not have cleavage planes which would allow them to split length-wise into fibers with smaller diameter; 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.

Microscopic examination of dust from highly chopped and pulverised glass demonstrated the presence of small amounts of respirable dust particles. Among these respirable particles, some were fiber-like in terms of length /diameter ratio (so-called "shards"). It can be clearly observed, however, that they are not regular shaped fibers but irregular shaped particles with fiber-like dimensions.


Continuous filament glass fibers are not carcinogenic (see section 15).

**Section 12. ECOLOGICAL INFORMATION**

No ecotoxicological data are available. Due to the properties of the article, a hazard to the environment may not be expected.

**Section 13. DISPOSAL CONSIDERATIONS**

Continuous filament glass fiber waste is a non hazardous waste. European Waste Code is 101103.

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#### Section 14. TRANSPORT INFORMATION

Not a dangerous good in the meaning of international and national transport regulations.

#### Section 15. REGULATORY INFORMATION

These products are **articles** according to Article 3.3 of regulation (EC) No. 1907/2006 (REACH). They do not contain substances intended to be released under normal or reasonably foreseeable conditions of use. For this reason, there is not any registration obligation for substances in articles according to Article 7.1 of the Regulation.

##### Information on Non Carcinogenicity

According to EU Directives the continuous filament glass fibers in these products are not classified as carcinogenic. Continuous filament glass fibers are not within the scope of Directive 67/548/EEC per amendment 97/69/EC since they are not "fibers with random orientation".

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

##### National Chemicals Inventories

Continuous filament glass fiber products are **articles** under The European Inventory of Existing Chemical Substances ( EINECS/ELINCS) and consequently are exempt from listing on this inventory. However, based on the rules enforced with regard to the marketing and use of chemicals in countries where our continuous filament glass fibers are manufactured, each chemical ingredient of these finished products has to be listed on the National Chemicals Inventory of the specific country where produced.

#### Section 16. OTHER INFORMATION

This document has been issued to align with REACH Regulation. This version replaces all previous versions.

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