



Material Safety Data Sheet–Glass Fibre

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Fiberglass
CAS#: Not available
Generic Name: Continuous Filament Fibre Glass
Formula: Substance
Chemical Name: Substance
Hazard Label: None required (not a dangerous substance)
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CHEMICAL PRODUCT IDENTIFICATION:

Assembled Roving, Direct Roving, Dry Chopped Strands, Wet Chopped Strands, Woven Roving, Stitched Chopped Strand Mat, Powder & Emulsion Chopped Strand Mat, Stitched Combination Mat, Woven Roving Combination Mat, Glass Filament Yarn, Cut Strands, Texturised Roving & Yarn, Multiaxial Fabrics, and Milled Fibres, Glass Fibre Tissue, Glass Fibre Veil, Glass Fibre Nonwoven

REACH

The European Regulation on Chemicals No. 1907/2006 (REACH) enforced on June 1st, 2007 only requires Material Safety Data Sheets (MSDS) for hazardous substances and preparations. Continuous filament glass fibre products are classified under REACH as articles and so no MSDS is legally required. However, as a service to our customers CR issue this Safety Data Sheet to assist customers on the safe handling and use of glass fibre products

Continuous filament glass fibre products are made of glass which is given a specific shape (filament) and dimension (filament diameter). A surface treatment (sizing) is applied to the filaments which are gathered to form a strand. The strand is further processed in to a specific product design according to the downstream use of the article. The sizing is a mixture of chemicals (coupling agents, film formers, and polymeric resin/emulsion). The sizing content is usually below 3%. However, for Chopped Strand Mat and Continuous Filament Mat a binder is applied as a secondary step to form the Mat. The binder (mixture of polymeric resin and surfactants) content is usually below 10% of the product weight.

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients of Products:

<u>Product Name</u>	<u>Glass (%)</u>	<u>Size (%)</u>	<u>Binder (%)</u>	<u>Water (%)</u>
Assembled Roving	≥97.7	≤2.3	/	/
Direct Roving	≥99.2	≤0.8	/	/
Dry Chopped Strands	≥97.9	≤2.1	/	/
Wet Chopped Strands	87.8-92.0	≤0.2	/	8.0-12.0
Woven Roving	≥99.2	≤0.8	/	/
Stitch Chopped Strand Mat	≥91.7	≤1.0	≤7.3	/
Power Chopped Strand Mat	≥93.7	≤0.7	≤5.6	/
Stitch Combo Mat	≥96.8	≤1.0	≤2.2	/
Woven Roving Combo Mat	≥96.8	≤1.0	≤2.2	/
Glass Filament Yarn	≥98.8	≤1.2	/	/
Cut Strands	85.0-92.0	/	/	8.0-15.0
Tissue, Veil, Nonwoven	≥70	/	≤30	/
Marketable Cake	≥93.7	≤0.7	/	/
Texturized Yarn	≥99.4	≤0.6	/	/
Milled Fibres	>97.0	≤2.3	/	/

CAS No.

65997-17-3

Not available

Component

Continuous filament glass fibre (EINECS 266-046-0)

Sizing

Additional Component Information

A: General Product Information

Product is continuous glass filament (substance) and sizing. Filament (fibre) average diameters are >8 microns

Continuous filament fibre glass is not classified as a dangerous substance according to Note R of Commission Directive 97/69/EC (23rd Adaptation to Council Directive 67/548/EC on Dangerous Substances).

Sizing is a chemical mixture applied to the glass strands. Sizing less than 2% of the finished product by weight and is a mixture of polymers and small number of other additives. For Tissue, Veil, and Nonwoven, Binder can constitute up to 30%

B: Component Analysis

No information available.

SECTION 3 – HAZARDS IDENTIFICATION

Emergency Overview

Appearance and Odor: White glass fibres. No significant odor.

Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation and/or congestion – remove individual to fresh air.

Substance Classification

This product does not require labeling as a dangerous substance according to the Manual of Decisions for Implementation of the Sixth and Seventh Amendments to Directive 67/548/EEC on Dangerous Substances (Directives 79/831/EEC and 92/32/EEC), March 2004.

Continuous glass filament is not respirable (not able to be inhaled in to the lower lung), because the nominal diameter is greater than 10 microns. Respirable fibres are defined by the World Health Organisation as having diameters less than 3 micron. The only health effect associated with this product is possible temporary, mechanical irritation (itchiness) of the eyes, skin, and upper respiratory tract following direct contact with the product or high levels of dust.

Potential Health Effects

Summary

Breathing dust from this product may cause a scratchy throat, congestion, and slight coughing. Getting dust or fibres on the skin, or in the eyes may cause itching, rash, or redness. Due to the thick diameters of continuous glass filaments, the fibres cannot be inhaled in to the lower lung. Therefore, the effects of glass filaments are limited to irritation of the upper respiratory tract (nose, throat, upper airways).

Inhalation

Irritation of the upper respiratory tract (scratchy throat), coughing, and congestion may occur in extreme exposures.

Skin

Temporary irritation (itching) or redness may occur.

Ingestion

This product is not intended to be ingested (eaten). If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

Eyes

Temporary irritation (itching) or redness may occur.

Ears

Temporary irritation (itching) or redness may occur.

Chronic Health Effect

No known effect connected with long term use or contact with this product

Carcinogenicity

Not considered a carcinogen

Potential Environmental Effect

No known ecological information

Target Organs

Upper respiratory passages, skin, and eyes.

Primary Routes of Entry (Exposure)



Inhalation (breathing dust fibres, or vapours), skin, or eye contact.

Medical Conditions Aggravated by Exposure

Pre-existing chronic respiratory, skin, or eyes diseases or conditions.

SECTION 4 – FIRST AID MEASURES

Inhalation:

Remove to fresh air. Drink water to clear the throat, and blow nose to remove dust.

Skin:

Wash gently with soap and water to remove the dust. Refrain from rinsing with warm water since warm water will make the skin pores open to allow fiberglass to penetrate more deeply. Wash hands before eating or using restrooms. If fiberglass penetrates the skin, use a wash cloth to help pull out the fiberglass. To avoid further irritation, do not rub or scratch affected skin. If irritation persists, get medical help.

Ingestion:

Product is not intended to be eaten or ingested. If this product is ingested, irritation of the gastrointestinal tract may occur, and should be treated symptomatically. Rinse mouth with water to remove fibres, and drink plenty of water to help reduce the irritation. No chronic effects are expected following ingestion. If irritation persists, get medical help.

Eye Contact:

Do not rub or scratch the eyes. Immediately flush eyes with clean water for at least 15 minutes. If irritation persists, get medical help.

Ears:

Do not rub or scratch the ears if itching occurs. Wash gently with soap and water to remove dust or fibres.

Notes to Physician

This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed towards removing the source of irritation with symptomatic treatment as necessary.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point: Not applicable

Method Used: Not applicable

Upper Flammable Limit (UFL): Not applicable

Lower Flammable Limit (LFL): Not applicable

Auto Ignition: Not determined

Flammability Classification: Not determined

Rate of Burning: Not determined

General Fire Hazards

There is no potential for spontaneous fire or explosion.

Extinguishing Media

Carbon Dioxide (CO₂), water, water fog, dry chemical.

Fire Fighting Equipment/Instructions

Wear self-contained breathing apparatus (SCBA) and full fire fighting protective gear. Normal



fire fighting procedures should be followed to avoid inhalation of smoke and gases.

Hazardous Combustion Products

Carbon Monoxide, Hydrogen, Carbon Dioxide. Other undetermined compounds could be released in small quantities.

Universal Fire & Explosion Hazards

None known

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Containment Procedures

Pick up large pieces. Vacuum dust. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation. These procedures will help minimize potential exposures.

Clean-Up Procedures

Prior to disposal of waste substances and clean up materials, consult an approved waste disposal representative to ensure compliance with Directive 91/689/EEC.

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 fiberglass fragments from improper handling. Use protective equipment as described in Section 8 of this safety data sheet when handling un-contained material.

Storage:

Warehouse storage should be in accordance with packaging instructions, if any. Material should be kept dry and protected from moisture.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

A: Substance Exposure Limits

Continuous Filament Glass Fibre (EINECS 266-046-0) (65997-17-3)

ACGIH: 1f/cc TWA (respirable fibres: length > 5-micron, aspect ratio equal to or greater than 3:1); 5mg/m³ TWA (inhalable fraction)

Netherlands: 10mg/m³ MAC (dust)

Portugal: 1 f/cc TWA (respirable fibres: length > 5micron, aspect ration equal to or greater than 3:1); 5mg/m³ TWA (inhalable fraction)

Personal Protective Equipment

Personal Protective Equipment: Eyes/Face

Safety glasses with side shields are recommended to keep dust out of the eyes

Personal Protective Equipment: Ears

Use ear protection (earplugs/hood/or earmuffs) to prevent airborne dust or fibres entering the

ear

Personal Protective Equipment: Skin

Leather or cotton gloves should be worn to prevent skin contact and irritation. Barrier creams may also be used to reduce skin contact and irritation caused by glass fibre

Personal Protective Equipment: Respiratory

Respiratory protection is recommended if the product is installed in poorly ventilated areas. Wear European standard EN149 approved respiratory equipment when ambient dust of fibre concentrations exceeds the applicable exposure limits.

Ventilation

In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting to remove airborne dust and fibres. General dilution ventilation should be provided as necessary to keep airborne dust and fibres below the applicable exposure limits and guidelines. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.

Personal Protective Equipment: General

Wear a cap, a loose fitting long sleeve shirt and long trousers to protect skin from irritation. Exposed skin areas should be washed with soap and water after handling working with glass fibre. Clothing should be washed separately from other clothes, and the washer be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiberglass being transferred to other clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White glass fibres

Physical State: Solid

Vapour Pressure: Not applicable

Boiling Point: Not applicable

Solubility (H₂O): Nil

Freezing Point: Not applicable

Evaporation Rate: Not applicable

VOC: Not applicable

Odor: No significant odor

ph: Not applicable

Vapour Density: Not applicable

Melting Point: >850°C

Specific Gravity: 2.54g/cm

Softening Point: 845°C

Percent Volatile: 0%

SECTION 10 – CHEMICAL STABILITY AND REACTIVITY INFORMATION

Chemical Stability: This product is not reactive.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition: Size and binder will decompose thermally and may form carbon monoxide, hydrogen, carbon dioxide and water.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity

A: General Product Information

Continuous filament glass fibre is not classified as a dangerous substance according to 67/548/EEC and 97/69/EC. Dust from this product is a mechanical irritant, which means it may cause temporary irritation or scratchiness of the throat, and/or itching of the eyes and skin.

B: Component Analysis – LD50/LC50

No LD50/LC50 data is available for this product

Carcinogenicity

A: General Product Information

Not a carcinogen.

European Union: Continuous filament fibre glass is exempt from classification as a carcinogen by Note R of Directive 97/69/EC 5th Dec 1997 (23rd Amendment to Directive 67/548/EEC)

B: Substance Carcinogenicity

Continuous filament glass fibre (EINECS 266-046-0) (65997-17-3)

IARC: Group 3 – Not Classifiable (IARC Monograph 43, 1988; Monograph 81 2002)

Chronic Toxicity

Continuous Filament Glass Fibre: No chronic health effects are known to be associated with exposure to continuous filament glass fibre. Long-term epidemiological studies do not show any increase in respiratory cancer or other disease among employees who manufacture this product. In 1987 the international Agency for Research on Cancer (IARC) classified continuous filament glass fibre as a Group 3 substance, “not classifiable as to its carcinogenicity to humans”. In 2001 IARC re-affirmed this designation. Because of the large filament diameter of continuous filament fibres, these fibres are not considered respirable.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity

A: General Product Information

No data available for this product. Fiberglass products are not listed as a material harmful to animals, plants and fish.

B: Component Analysis – Ecotoxicity – Aquatic Toxicity

No ecotoxicity data is available for this product's components.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Information

This material is considered general industrial solid waste. This product is not classified as a hazardous waste under EU hazardous waste directive 91/689/EEC

Disposal Instructions

No special procedures are necessary. Dispose waste material according to local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION

International Transport Regulations

This product is not classified as dangerous goods for transport based on Annexes A, B and C to Council Directive 94/55/EC.

SECTION 15 - REGULATORY INFORMATION

European Union Regulatory Information

This product does not require labeling as a dangerous substance according to the Manual of Decisions for Implementation of the Sixth and seventh Amendments to Directive 67/548/EEC on Dangerous Substances (Directives 79/831/EEC and 92/32/EEC), March 2004

SECTION 16 - OTHER INFORMATION

Full text of Risk Phrases in Sections 2 & 3

This product does not require labeling as a dangerous substance according to the Manual of Decisions for Implementation of the Sixth and Seventh Amendments to Directive 67/548/EEC on Dangerous Substances (Directives 79/831/EEC and 92/32/EEC, March 2004. Risk phrase are not required for this product.

Other information

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