

MATERIAL SAFETY DATA SHEET (MSDS)

METYX[®] Metycore & Metycore Max E-Glass RTM Fabric

1. Identification of the Substance and Company/Undertaking

1.1. Trade Name: METYX[®] Metycore & Metycore MaxE-Glass RTM Fabric

1.2. Chemical Name: E-Glass (alumino-borosilicate glass) and polypropylene

1.3. Scope: Reinforcement for plastics

1.4. Supplier Details:

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2. Composition/Information on Ingredients

Chopped (chopped to a specific length) E-glass fiber including polypropylene monofilament and synthetic threading yarn

CAS Number: E-Glass Fiber: 65997-17-3

Polypropylene: 9003-07-0

Chopped E-glass fiber is a glass product which is given a specific shape (filament) and dimension (filament length and diameter). A surface treatment (sizing) is applied to the filament which are gathered to form a strand. 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%. Metycore and Metycore Max include chopped E-glass fibers, cut polypropylene monofilaments or continuous polypropylene monofilament, and synthetic stitching yarn.

3. Hazards Identifications

Glass fiber does not meet the classification for a “dangerous substance” according to 67/548/EEC and 97/69/EC. Glass fiber carries no CA and no EPA designation number. CAS number: see under 65997-13-3. Glass fibre is considered to be an article as defined in section 710.2 (F) of the US TSCA and, as such, is exempt from section 5 and section 8 (B) reporting requirements.

Under normal industrial conditions, product is not flammable and has stability.

3.1. Skin: Directly contact with skin may cause irritation, itching, rash, and swelling. Wear protective clothes.

3.2. Eye: May cause eye irritation, rash, pain. These symptoms may continue after stop working. This condition may be temporary but may cause permanent influence as cornea. Wear safety glasses.

3.3. Respiratory: May cause respiratory problems. This may damage throat and lungs and cause cough. Wear respiratory mask.

4. First Aid Measures

4.1. Inhalation: May cause respiratory problem. Move to fresh air. If symptoms persist, call physician.

4.2. Skin Contact: If skin irritation does occur, remove contaminated clothing and wash off plenty of water min. 15 minutes without rubbing. Use a mild soap if possible. If symptoms persist, call physician.

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- 4.3. Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes without rubbing. If eye irritation persists, consult a specialist.
- 4.4. Ingestion: Gently wipe or rinse the inside of the mouth with water. Consult a physician if necessary.
- 4.5. Additional information: Mild hydrocortisone skin cream is helpful for skin irritation.

5. Fire Fighting Measures

- 5.1. Suitable Extinguishing Media: Water, carbon dioxide (CO₂), foam, dry chemical. Extinguishing media for B class fire may be used.
- 5.2. Special Protective Clothing: In case of big fires self-contained breathing apparatus must be used and full protective clothing must be worn.
- 5.3. Additional information: Only the packaging film, polyester yarn, polypropylene monofilaments and E-glass sizing material are likely to burn. Combustion gases are basically carbon dioxide and water vapor. There may be small quantities of carbon monoxide and other substances which make it necessary to use protective devices in the event of a major fire.

6. Accidental Release Measures

- 6.1. Personal Precautions: Provide eyewash stations. Under normal industrial conditions, this product is not flammable and has stability. See chapter 8.
- 6.2. Environmental Precautions: No special environmental precautions required.
- 6.3. Spill Cleanup Methods: None.

7. Handling & Storage

- 7.1. Usage Precautions: Wear appropriate personal protective equipment in case of direct contact with the product (See section 8). Provide adequate ventilation. Prevent and/or minimize dust formation. Keep away from heating sources.
- 7.2. Storage Precautions: Keep product in its packaging until use to minimize potential dust generation. Store in original package in a cool, dry place. Packaging material must be protected from damage during transporting and carrying.
- 7.3. Special Usage: Vacuum clean, sweep or shovel carefully in order to prevent dust suspension.

8. Exposure Control & Personal Protection

Continuous filament glass fibers are not respirable however certain mechanical processes might generate airborne dust or fiber (See section 11).

8.1. Engineering Measures:

Occupational Exposure Limits (OEL)

Fiber Glass Continuous Filament (65997-17-3)

The American Conference of Governmental Hygienists has adopted a Threshold Limit Value (TLV) for fibrous dust of 15mg/m³ (total) and 5mg/m³ (respirable). The Occupational Safety and Health Administration (OSHA) does not prescribe a Permissible Exposure Limit (PEL) for fibrous glass but relies on the PEL-TWA's for nuisance dust of 15mg/m³ (total) and 5mg/m³ (respirable).

Respirable fraction: 1 fiber/cc (related to respirable particulate with fiber-like dimensions (glass shards))

8.2. Respiratory Equipment: Provide adequate ventilation to ensure that the defined workplace exposure limit is not exceeded. If use or application generates dust, use an appropriate respirator with a particulate filter.

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8.3. Skin Protect: Skin irritation is known to occur chiefly at the pressure points such as around the neck, wrists, and waist and between the fingers. Long-sleeved garments and long leggings are recommended to prevent irritation. Wear protective gloves (nitrile rubber, butyl rubber, PVC, Viton[®]). See AS 2161

8.4. Eye Protect: Wear safety glasses with side-shields. See AS 1336 ve AS/NZS 1337

8.5. 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 tucks

Remove and wash contaminated clothing before re-use

9. Physical & Chemical Specifications

9.1. Appear./Form/Odor: Solid, white, roll, odorless

9.2. Density: aprx. EGlass: 2.6 g/cm³ Polypropylene: 0,90-0,94 g/cm³

9.3. pH : not applicable

9.4. Viscosity: not applicable

9.5. Solubility: insoluble in water and oil

9.6. Vapor Pressure: not applicable

9.7. Flash Point: not applicable

9.8. Ignition Temp.: Polypropylene: 330°C (ASTM D1929), E-glass: not applicable

9.9. Melting Point: ~ 800-850°C, Polypropylene 160-165°C

9.10. Boiling Temp.: not applicable

9.11. Explosion Limits: not applicable

9.12. Thermal Decomposition: not applicable, see chapter 10

9.13. Other: Friction may cause static electricity

10. Stability & Reactivity

10.1. Conditions to Avoid: High humidity and heat can affect product properties. Thermal degradation temperature of polypropylene starts at 130°C.

10.2. Materials to Avoid: Moisture

10.3. Hazardous Decomposition Products: Long time high heat exposure can damage surface coating of product. CO and NOx gasses can be released.

11. Toxicological Information

Short term effects:

Dusts and fibers may cause mechanical irritation to eyes and skin. The irritation disappears when the exposure ceases. Mechanical irritation is not considered as a health hazard in the meaning of European directive 67/548/EC on hazardous substance. Inhalation may cause coughing, nose and throat irritation and sneezing. High exposures may cause difficult breathing, congestion and chest tightness.

Long term effects:

There are no known health effects from the long term use or contact with non-respirable long filament fibers. Non-respirable fibers cannot reach the deep lung because they have a diameter of greater than 3.5 micrometers. Fibers of this diameter cannot penetrate the narrow, bending passages of the human respiratory tract to reach the lower regions of the lung and thus, have no possibility of causing serious pulmonary damage. Instead, they deposit on the surfaces of the upper respiratory tract, nose, or pharynx. These fibers are then cleared through normal physiological mechanisms.

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12. Ecological Information

12.1 Ecotoxicity:

12.2 Mobilite:

12.3 Stability & Decomposition: PP fiber coating starts to decompose within the range of approx. 130 °C -190°C.

12.4 Bioaccumulativite:

12.5 Other: Immobile solid waste

13. Disposal Considerations

This product can be considered as immobile solid waste and disposed as solid waste. Glass fiber must be destroyed depending on local regulations. EWC (European Waste Catalogue) chapter 101103 belongs to glass fiber materials.

If glass fiber involves any resin to form a composite structure (cured or half cured), disposing of this material must do considering disposal consideration of the resin. Waste number (EWC code) of polypropylene is 02.01.04, Glass fiber is 10.11.03.

14. Transport Information: Not classified as dangerous in the meaning of transport regulations.

15. Regulatory Information

European Economic Committee (EEC) Labeling Classification : Fiber Glass does not meet the classification for a “dangerous substance” according to 67/548/EEC and 87/69/EC. The E-glass composition has been incorporated in the ELMECS under CAS number 65887-17-3 as a glass oxide.

United States : EPA Toxic Substances Control Act (TSCA): Fiber Glass carries no Chemical Abstracts Index name, CAS registry number or EPA code designation number. Fiber Glass is an “article” as defined in Section 710.2(f). It is exempt from Sections 5 and 8(b) reporting requirements.

NOTICE : Contact with fibrous glass may cause temporary skin irritation. Wear long-sleeved, loose-fitting clothing when handling the material. Gloves and eye protection may be appropriate in certain operations. Wash with soap and warm water after handling. Use of a disposable mask in accordance with Occupational Safety and Health -06- Administration 1910.134 respiratory protection requirements designed for nuisance dusts is advisable where high dust levels may be encountered. The International Agency for Research on Cancer (IARC) has designated continuous filament fiber glass as a group 3 “not classifiable as to human carcinogenicity”, meaning that evidence is not sufficient to link that fiber to cancer.

Water pollution class of polypropylene is 1.

16. Other Information

DISCLAIMER

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Users assume full responsibility for applying the appropriate safety measures when the product used.