Material Safety Data Sheet according to 91/155/EWG

Trade Name: Fiber Glass Fabric

1. Fabric-/Preparation- and Company Profile

- **Details about the Product:**
  Fiber Glass fabric made from continuous filaments (aluminum-borsilicat glass with an alkali content of ≤1 %) with up to 2.0 % silan based sizing share.

- **Producer/Supplier:**

SAERTEX USA LLC.
12200-A Mt.Holly-Huntersville Rd.
Huntersville, N.C. 28078
Phone +1 (704 464 5998, Fax +1 (704) 464 5922, info@saertex.com, www.saertex.com

- **Information provided:**
  Quality Assurance

- **Emergency Information:**
  see: Producer/Supplier or Local Hospital

2. Composition/Ingredient Information

- **Description:** E-Glass (Aluminum-Borsilicatglass with an Alkali content of ≤1%) with up to 2.0 % silane based sizing share and polyester based sewing thread...

- **Hazardous Ingredients:**

CAS-Nr.	Chemical name	%	Charact.	R-phrases
65997-17-3	Aluminum-Borsilicatglass with an alkali content ≤1%	96-99		
n.a.	Silan based sizing	0.5-2.0		
n.a.	Polyester based sewing thread	0.5-2.0		

3. Hazards Identification

The Fiber Glass fabric is non toxic. It contains a silane based sizing as well as a polyester based sewing thread. At temperatures above 150 °C the thermal decomposure of the sizing begins, from approx. 380°C the sewing thread starts to decompose. During these processes no dangerous decomposition occurs.

- General Guidelines:

- **Inhalation:** Fiber Glass continuous filament is a mechanical irritant. Breathing dusts and fibers may cause short term irritation of the mouth, nose and throat. This product is not absorbed by the lung.

- **Skin Contact:** Skin contact with dust and fibers can cause itching and temporary skin irritations.

- **Eye Contact:** Eye contact with dust and fibers can cause itching and temporary irritations.

- **Swallowing:** Swallowing of dust and fibers can cause temporary mechanical irritations of the intestines.

- **Chronic (Long Term):** There is no known health effects connected with long term use or contact with this product.

- **Medical Conditions Aggravated by Exposure:** Long term breathing or skin conditions that are aggravated by mechanical irritants may be at a higher risk for worsening from use or contact with this product.

Trade Name: Fiber Glass Fabric

4. First-Aid Measures

- **Inhalation:** By long-term exposure to fiber dust or flying particles, one should move to fresh air and seek medical attention if irritation persists.
- **Eye Contact:** In case of eye irritation these should be flushed with running water. Seek medical attention if irritation persists.
- **Skin Contact:** Wash with mild soap and running water. Use a washcloth to help remove fibers. To avoid more irritation, do not rub or scratch affected areas. Rubbing or scratching may force fibers into skin. Seek medical attention if irritation persists.
- **Swallowing:** Consult a doctor.

5. Fire Fighting Measures

- **Flashpoint:** Non-burning.
- **Flammability Limits:** Not applicable.
- **Extinguishing Media:** Not applicable.
- **Fire Fighting Instructions:** Use self contained breathing apparatus (SCBA) in a sustained fire.
- **Unusual Fire and Explosion Hazards:** None known.
- **Special Exposure Hazards from Fire:** Hazardous decomposition products of combustion from sizing and binders may be released in a sustained fire. The larger part of the product is nonflammable E-glass.

6. Accidental Release Measures:

- **Steps to be taken upon release or spill:** Mechanical sweeping methods

7. Handling and Storage

Handling: - Guidelines for Safe Handling: Flying fibers- and dust particles must be avoided by sufficient vacuuming and ventilating. No special storage of handling procedures is required for this material.

8. Exposure Controls and Personal Protection

- **General Protection and Hygienic Measures:** General dilution ventilation and/or local exhaust ventilation should be provided as necessary to maintain exposures below regulatory limits.
- **Respiratory Protection:** If high dust levels are encountered, a properly fitted NIOSH (government) approved respirator is recommended.
- **Eye Protection:** Wear safety glasses with side shields.
- **Skin Protection:** Protective gloves can reduce irritation to the skin.
- **Exposure Limits:** The American Conference of Governmental Hygienists (ACGIH) has adopted a Threshold Limit Value (TLV) of 5 mg/m³ for an 8 hour time weighted average (TWA) exposure for inhalable fibrous glass dust inhalable fraction and 1 fiber per cubic centimeter of air (1 f/CC) 8hr-TWA respirable fibers. 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 5 mb/m³ (respirable).
  The TLV's have been adopted by many countries. The TLV refers to the glass fiber concentration of the air in mg glass fibers per cubic meter air. A clear difference is to be made between not-inhalable fibers and inhalable fibers available in the air.
  SAERTEX does not make use of fibers with diameters that are considered as respirable.

Trade Name: Fiber Glass Fabric

9. Physical and Chemical Properties

- Form:	Fiber glass fabric
- Color:	white / yellow-white
- Odor:	No odor

Change of shape:	**Value/Area, Unit, Method:**
- Boiling/Freezing Points:	not applicable
- Melting Point (softening):	approx. 800 °C
- Flashpoint:	not applicable
- Flammability:	not applicable
- Decomposition Temperature:	not applicable
- Self inflammation:	not applicable
- Explosion Limits:	not applicable
- Vapor Pressure:	not applicable
- Density:	2.6 – 2.7 g/cm³
- Oxidation Risk:	not applicable
- Solubility in water:	insoluble

10. Stability and Reactivity

- **Hazardous Decomposition Products:** Sizing or binders may decompose in a fire.

11. Toxicological Information

- **Fiber Dimensions:** Fibers are either non-respirable or respirable. Respirable fibers can penetrate to the "deep" lung. According to the World Health Organization (WHO), man made-mineral fibers with diameters equal to or greater than (> =) 3.0 microns (µm) are non-respirable.According to the National Institute for Occupational Safety and Health (NIOSH), fibers with diameters > = 3.5 µm are non-respirable. The narrow, bending passages of the human respiratory system, do not permit the relatively larger, non-respirable fibers to enter the "deep" lung. Instead, they deposit on the surfaces of the upper respiratory tract, nose or pharynx. They are then cleared through normal physiological mechanisms.
  As manufactured, continuous filament glass fibers are not respirable (> 3,5 micrometers in diameter). The fibers will not become respirable through industrial manufacture by the clients. Upon breakage, the fibers may break horizontally into smaller lengths but not longitudinally into smaller diameters.

- **Degree of Exposure:** According to Johnson et. al., in a 1969 US study of four fibrous glass production plants, "the results in terms of airborne concentrations of glass fibers and total dust would indicate that the workmen's exposure to these materials is negligible".

- **Carcinogenicity:** The International Agency for Research on Cancer (IARC) is part of the World Health Organization (WHO). IARC concludes that continuous fiber glass filaments are not classifiable as to their carcinogenicity in humans (Group 3) because there is inadequate evidence on the carcinogenicity of these materials in humans or experimental animals.

- **In a 1987 epidemiological study in the US, there was no excess of respiratory cancer found in glass filament workers with 20 years of latency. In a 1987 European study there was no excess of lung cancer found in workers with over 20 years of latency. In both studies there was no increasing trend with an estimated time-weighted measure of exposure. In both studies there was no increasing trend with an estimated time-weighted measure of exposure. In a further study, in which rats received glass fibers with a diameter of > 3 µm, also no statistically significant increase in the forming of tumors was shown.**

- The American Conference of Governmental Industrial Hygienists (ACGIH) has designated continuous filament fiber glass as not classifiable as a human carcinogen (A4). Continuous filament fiber glass is not listed in the National Toxicology Program (NTP) 7th Annual Report on Carcinogens, nor is it regulated by OSHA as a carcinogen.

Trade Name: Fiber Glass Fabric

12. Ecological Information

- **SAERTEX fiber glass fabrics** are generally considered to be an inert solid waste, and no special precautions should be taken in case it is released or spilled. These products do not contain, nor are manufactured with, Class I or Class II Ozone-Depleting Chemicals (CFCs).

13. Disposal Considerations

Saertex fiber glass fabrics are considered an inert solid waste, for which no special disposal procedures with regard to hazardous waste are necessary. Local, state, and national regulations should be consulted to ensure proper disposal procedures. Fiber glass products which are part of a reinforced plastic or uncured resin system must be disposed of in accordance with applicable requirements for those plastics or resins where they exist.

14. Transport Information

- **Transport/Further Details:** Considered as non hazardous in the sense of national and international transport regulations.

15. Regulatory Information

Fiber-glass fabrics in Europe are subject to Regulations of the European Community and are considered as additives, when being used as reinforcement of plastics that are in direct or indirect contact to food. As such they are listed in: Annex III of Directive 96/11/EC/amendment of Directive 90/128/EEC under the PM-Reference-Nr. 55520 without naming restrictions in the belonging table.

16. Other Information

The information contained in this safety data sheet is correct to the best of our knowledge. However it does not assure the product quality and does not justify a contractual legal position.