

FORMAX E-GLASS PRODUCTS MATERIAL SAFETY DATA SHEET

Section 1: Identification of the substance

1.1 Identification of the substance or preparation: Fibrous Glass, continuous filament.

Chemical Formula: E-glass
Product Types: Stitched, parallel laid fibre fabrics

Section 2: Composition / Information on Ingredients

Ingredients	% Weight	Control Limit
Fibrous Glass (E-type, continuous filament) Composition consisting principally of oxides, silicon, aluminium, calcium, boron and magnesium, fused in an amorphous vitreous state.	90.0% min	To be considered as a (non respirable) "nuisance" dust. Control limits according to local regulations.
Surface Sizing (complex mixture; in general, of silanes and polymers)	2.0% max	None established

Glass fibre does not meet the classification for a "dangerous substance" according to 67/548/EEC and 97/69/EC. Glass fibre 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.

Section 3: Hazards Identification

Emergency Overview: This product is stable and not flammable under normal industrial conditions. Exposure to continuous filament glass fibres sometimes causes irritation of the skin and, less frequently, irritation of the eyes, nose or throat. The primary route of entry into the body is inhalation. The glass fibres used by Formax UK Limited have diameters greater than 3.5 microns and are therefore NOT respirable, nor can they become respirable by any normal industrial processing.

Primary Route(s) of Entry: Inhalation

Signs and Symptoms of Overexposure: Rash, itching, conjunctivitis, coughing, sneezing

Health Hazards (acute): Exposure to continuous filament glass fibres sometimes causes irritation of the skin and, less frequently irritation of the eyes, nose, or throat.

(Chronic)/Carcinogenity Status: see Section 11

Medical Conditions Aggravated by Exposure: None known

EC Labelling Classification: Not a dangerous substance or preparation

Section 4: First-Aid Measures

Eye Contact: Flush eyes with clear water for at least 15 minutes – seek medical attention
Skin Contact: Rinse contact areas with room temperature to cool water, then wash gently with mild soap. If glass fibre becomes embedded, seek material attention
Inhalation: If irritation persists, seek medical attention. Product is NOT respirable.

If swallowed: Seek medical attention

Section 5: Fire-Fighting Measures

Flash Point: Non-burning
Flammable Limits: Not applicable
Extinguishing Media: Not applicable
Special Fire Fighting Procedures: In sustained fire self-contained breathing apparatus should be worn
Unusual Fire and Explosion Hazards: Not applicable
Special Exposure Hazards from Fire: Hazardous products of combustion of sizings and binders may be released in a sustained fire. The larger part off the glass fibre product is non-flammable E-glass

Section 6: Accidental Release Measures

Steps to be taken in case material is released or spilled: No special precautions
Waste Disposal Method: Dispose of as a solid waste in accordance with Government regulations.

Section 7: Handling and Storage

Precautions to be taken in Handling: Non relative to health and safety. This product is to be considered as a non-respirable "nuisance dust". Control limits according to local regulations.
Precautions to be taken in Storage: For optimum performance, Formax UK Limited fabrics should be stored at a temperature less than 25°C and a relative humidity less than 65%.

Section 8: Exposure Controls/Personal Protection

Respiratory Protection: None normally required. If airborne glass fibre concentrations exceed the control limit, respiratory protection for nuisance dusts should be provided.
Ventilation: Use local exhaust ventilation if necessary to maintain airborne levels to below established limit.
Skin Protection: Protective gloves may reduce skin irritation in some operations.
Eye Protection: Safety glasses with side shields should be worn
Other Protective Equipment: Use of overalls, long trousers, and good personal hygiene will maximise comfort.
Measurement Procedures/References: 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).

Section 9: Physical and Chemical Properties

Appearance: Yellow to white fibres bound together in strands	Odour: None
PH: Not applicable	Boiling Point: Not applicable
Melting Point (softening): 800°C	Freezing Point: Not applicable
Flash Point: Non-burning	Flammability: Not applicable
Auto-ignition/explosion limits: Non applicable	Oxidation Risk: Non applicable
Electrical conductivity: E-glass is an electrical insulator	Autoflammability: Non applicable
Evaporation Rate: Not applicable	Vapour Pressure: Not applicable
Specific Gravity (bare glass): 2.6-2.7	Vapour Density: Not applicable
Percent Volatile: Wet chopped strands: 15%, Mat: 6.5%, Other 2%	Solubility: Insoluble in water
Octanol/water Partition Coefficient: Not applicable	

Section 10: Stability and Reactivity

Stability: Stable
Conditions to avoid: None known
Incompatibility (Material to Avoid): None known

Hazardous Decomposition Products: In a sustained fire, sizings and binders may decompose releasing hazardous products of combustion (see Section 5)

Hazardous Polymerisation: Will not occur

Section 11: Toxicological Information

Factors in fibre toxicity include: Fibre dimensions and degree of exposure

Fibre Dimensions: fibres of diameters larger than 3.5 microns are deemed as being non-respirable. The fibres do not become respirable upon the sanding/machine processing activities of our customers. Upon fibre breakage, the fibres break horizontally into smaller lengths, but not longitudinally into smaller diameters.

Degree of Exposure: Not applicable

Carcinogenicity: The International Agency for Research on Cancer has designated continuous filament fibre glass, as a group 3, "not classifiable as to human carcinogenicity". This means that evidence is not sufficient to link that fibre to cancer.

Section 12: Ecological Information

Because glass fibre is generally considered to be an inert solid waste, no special precautions should be taken in case it is released or spilled.

Section 13: Disposal Considerations

Glass fibre is generally considered to be an inert solid waste not requiring hazardous waste disposal procedures.

Section 14: Transport Information

There are no special precautions or restrictions involving transport of glass fibre known to Formax UK Limited

Section 15: Regulatory Information

Glass fibres are considered in Europe under the EC regulations as being additives when used as reinforcements for plastics that are intended to come into direct or indirect contact with food and as such have been listed in Annex III of Directive 96/11/EC under PM/Reference No. 55520 with no restrictions mentioned in the pertaining table.

Section 16: Other information

Ask for the APFE brochure "Some Facts on Continuous Filament Fibre Glass and Human Health".

Valid from: 1st January, 2005