

A. Product & Company Information

- A.1 Product description:** Fibrous Glass, continuous filament.
- Chemical Formula:** E-CR glass.
- Product Types:** Direct Rovings, Chop / Spray-up Rovings, Chopped Strand Mats, Woven Rovings.
- A.2 Company information:** Eastern Industrial Company (EICO)
PO Box 10660, Al-Jubail Industrial City 31965, KSA
Tel: +966 13 3459300 Fax: +966 13 3448804

B. Composition / information on Ingredients

Ingredients	% - Weight	Control limit
Fibrous Glass (E-CR type, continuous filament) Composition consisting principally of oxides of silicon, aluminum, calcium, magnesium, zinc, & titanium 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.

C. Physical & Chemical Properties

Appearance	Yellow to white fibers bound together in strands.	Odor	None
PH	Not applicable.	Boiling point	Not applicable
Melting (softening) Point	895 - 905 ⁰ C	Freezing point	Not applicable
Flash Point	Non-burning.	Flammability	Not applicable
Auto-ignition/ explosion limits	Not applicable.	Oxidation risk	Not applicable
Electrical conductivity	E-CR glass is an electrical insulator.	Autoflammability	Not applicable
Evaporation rate	Not applicable.	Vapor pressure	Not applicable
Specific Gravity	2.66 – 2.68 (Bare glass)	Vapor density	Not applicable
Percent volatile	Mat: 6.0% (Max.); all others 2% (max.).		
Octanol/water partition coefficient	Not applicable.		
Solubility	Insoluble in water. Most of the EICO Glass types will disperse to some extent in organic solvents like styrene, acetone, etc. depending on their specific application.		

D. Stability & Reactivity

Stability	Stable
Conditions to Avoid	None known
Incompatibility (Materials to Avoid)	None known
Hazardous Decomposition Products	In a sustained fire, sizings and binders may decompose releasing hazardous products of combustion. (See Section G.)
Hazardous Polymerization	Will not occur

E. Hazards Identification

Emergency Overview: This product is stable and not flammable under normal industrial conditions. Exposure to continuous filament glass fibers 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. EICO glass fibers, however, due to their favorable diameters are 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, coughing, conjunctivitis, sneezing.

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

(Chronic): A number of epidemiology studies, done over many years, of workers employed for up to 40 years in the manufacture of glass fibers has shown no evidence of increases in either malignant or non-malignant respiratory disease attributable to exposure to glass fiber. Recent studies showed no evidence of an increase in lung cancer among workers employed exclusively in the manufacture of continuous filament glass fiber. Animal inhalation studies for glass fiber have not shown evidence of either a carcinogenic or fibrogenic response.

Carcinogenicity Status: Continuous filament glass fiber has been designated by the International Agency for Research on Cancer (IARC) as a Group 3, "not classifiable as to human carcinogenicity". This means that evidence is insufficient to link that fiber to cancer.

Medical Conditions Aggravated by Exposure: None known.

EEC labeling Classification: Not a dangerous substance or preparation.

F. 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 fiber becomes embedded, seek medical attention.

Inhalation: If irritation persists, seek medical attention. EICO glass fibers are NOT respirable nor can they become respirable by any normal industrial processing.

If swallowed: Seek medical attention.

G. Fire Fighting Measures

Flash Point:	Non-burning.
Flammable Limits:	Not applicable.
Extinguishing Media:	Not applicable.
Special Fire Fighting Procedures:	In a sustained fire, self-contained breathing apparatus (SCBA) 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 of the glass fiber product is nonflammable E-CR glass.

H. Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: No special precautions.

Waste Disposal Method: Dispose of as solid waste in accordance with Government regulations. Product is to be considered as a non-respirable 'nuisance dust'. (See Paragraph M, Disposal Considerations.) Use of suitable overalls will maximize comfort both at cleaning up and normal processing activities.

I. Handling and Storage

I.1. Handling

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, typical Threshold Limit Value (TLVS) being 10 mg/m³ (time weighted average, TVVA, 8 hours).

I.2. Storage

Precautions to be Taken in Storage: For optimum performance, EICO Glass Fiber products should be stored at a temperature less than 35⁰ C and a relative humidity less than 70%. Glass fiber has electrically isolation properties and hence may give some static.

J. Exposure Controls/Personal Protection

Respiratory Protection: None normally required. If airborne glass fiber 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, buttoned to fit loosely at the neck and wrists, long trousers, and good personal hygiene will maximize comfort. The use of barrier creams may provide additional skin comfort.

Measurement Procedures/References: The American Conference of Governmental Hygienists (ACGIH) has adopted a Threshold Limit Value (TLV ®) for fibrous glass dust of 10 mg/m³ (TWA, 8 hours). Many other countries have adopted the TLV ® 's. The TLV® pertains to airborne continuous glass fiber concentrations in mg of glass fiber/m³ of air. A clear distinction should be made between *non-respirable* fibers and airborne respirable fibers. EICO does not manufacture glass fibers with diameters that are classified as respirable (fibers with diameters less than 3.0 microns).



MATERIAL SAFETY DATA SHEET

K. Toxicological Information

This product is *not* classified as "dangerous," according to the Seventh Amendment to 67/548/EEC. **Immediate Health Hazards (Acute):** Exposure to continuous filament glass fibers sometimes causes, Irritation of the skin and, less frequently, irritation of the eyes, nose, or throat.

L. Ecological Information

Because glass fiber is generally considered to be an inert solid waste, no special precautions should be taken in case it is released or spilled. EICO does not produce any glass fiber product that contains or is manufactured with Class I or Class II Ozone-Depleting Chemicals (CFCs).

M. Disposal Considerations

Glass fiber is generally considered to be an inert solid waste not requiring hazardous waste disposal procedures. Local or national regulations should be consulted to ensure proper disposal procedures. Glass fiber products which have become part of a reinforced plastic or cured resin system must be disposed of in accordance with applicable requirements for those plastics or resins where they exist.

N. Transport information

Not classified, no special procedures required.

O. Regulatory Information

Glass fiber carries no CA, no CAS registry number and no EPA code designation number. Glass as a generic substance, the E-CR glass composition including, has been incorporated in the EINECS (Europe) under No. 65997-17-3. Glass fiber is considered to be an article as defined in section 710.2(f) of the U.S. TSCA and as such is, exempt from section 5 and section 8(b) of the U.S. TSCA reporting requirements.

The above information is given in good faith but no warranty, express or implied is made.

For more information please contact:

EASTERN INDUSTRIAL COMPANY (EICO)

P. O. Box 10660, Al-Jubail 31965, Kingdom of Saudi Arabia

CUSTOMER SERVICE DEPARTMENT:

Tel: 00 966 13 3459334 / 3459335 Fax: 00.966.13. 3448804

Email: sales@eico.com.sa

