

**MATERIAL SAFETY DATA SHEET**

**1. IDENTIFICATION**

<b>Manufacturer/Supplier Name</b> WWS Weldability	<b>Telephone Number</b> 0146482200
<b>Address:</b> Peters House, Orbital Centre, Icknield Way, Letchworth Garden City, Hertfordshire, SG6 1ET	
<b>Product Type:</b> Protective Blankets	
<b>Trade Name</b> Light Duty Blanket / Heavy Duty Blanket / Automotive Blanket	<b>AWS Classification/Part number</b> ESF5001, ESF6001 and ESF7001

**2.COMPOSITION/INFORMATION ON INGRDEIENTS**

<b>Ingredients:</b>	<b>% Weight:</b>	<b>Control Limit:</b>
Fibrous Glass (E type, continuous filament) Composition consisting principally of oxides of 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 polymers.	2.0 (Max)	None established

Glass fibre does not meet the classification for a "dangerous substance" according to 67/548/EEC. Glass fibre carries no CA, no CAS registry number and no EPA code designation number. Glass as a generic substance, the E glass composition including, has been incorporated in the EINECS under no. 65997-17-3. Glass fibre 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) reporting requirements.

**3. HAZARDS IDENTIFICATION**

<b>Overview:</b>	Exposure to continuous filament glass fibres sometimes causes irritation of the skin, and, less frequently, irritation of the eyes, nose or throat. However the fibres, due to the favourable diameters are not respirable, nor can they become respirable by any normal industrial processing.
<b>Primary Route of Entry:</b>	Inhalation.
<b>Signs and Symptoms of Overexposure:</b>	Rash, itching, conjunctivitis, coughing, sneezing.
<b>Health Hazards:</b>	Exposure to continuous filament glass fibres sometimes causes irritation of the skin and less frequently, irritation to the eyes nose or throat.
<b>Carcinogenic Status:</b>	Continuous filament glass fibre has been designated by the International Agency for Research on Cancer as a Group 3, "not classifiable as to human carcinogenicity". This means that evidence is insufficient to link that fibre to cancer.
<b>Medical Conditions Aggravated by Exposure:</b>	None Known.
<b>EEC Labelling Classification:</b>	Not a dangerous substance or preparation.



#### 4. FIRST AID MEASURES

<b>Eye Contact:</b>	Flush eyes with clear water for at least 15 minutes – seek medical attention.
<b>Skin Contact:</b>	Rinse contact areas with water, which is room temperature to cool, then wash gently with mild soap. If glass fibre becomes embedded, seek medical attention.
<b>Inhalation:</b>	If irritation persists, seek medical attention.
<b>If Swallowed:</b>	Seek medical attention.

#### 5. FIRE FIGHTING MEASURES

<b>Flash Point:</b>	Non-burning.
<b>Flammable Limits:</b>	Not Applicable.
<b>Extinguishing Media:</b>	Not Applicable.
<b>Special Fire Fighting Procedures:</b>	In a sustained fire, self-contained breathing apparatus should be used.
<b>Unusual Fire and Explosion Hazards:</b>	Not applicable.
<b>Special Exposure Hazards from Fire:</b>	Hazardous products in the size or binders may be released in a sustained fire. The glass fibre product is non-flammable E glass.

#### 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. Product is considered as a non-respirable “nuisance dust”. Use of suitable overalls will maximize comfort both at cleaning up and normal processing activities.

#### 7. HANDLING AND STORAGE

**Precautions to take in handling:** None 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 value (TLVa) being 10mg/m<sup>3</sup> (time weighted average (TWA), 8 hours).

**Precautions to take in storage:** For optimum performance, glass fibre products should be stored at temperatures less than 25°C and a relative humidity less than 65%. Glass fibre has electrical isolation properties and so may give some static.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Respiratory Protection:</b>	None required. If airborne glass fibre concentrations exceed the control limit, respiratory protection for nuisance dust should be provided.
<b>Ventilation:</b>	Use local exhaust ventilation, if necessary, to maintain airborne levels to below established limits.
<b>Skin Protection:</b>	Protective gloves may reduce skin irritation in some operations.
<b>Eye Protection:</b>	Safety glasses with side shields should be worn.
<b>Other Protective Equipment:</b>	Use of overalls, buttoned to fit loosely at the neck and wrists, long trousers and good personal hygiene will maximise comfort. The use of barrier creams may provide extra comfort.
<b>Measurement Procedures/References:</b>	The American Conference of Hygienists (ACGIH) has adopted a Threshold Limit Value (TLVa) for fibrous glass dust of 10mg/m <sup>3</sup> (TWA, 8 hours). The TVLa’s have been adopted by many other countries. The TLVa pertains to airborne continuous filament glass fibre concentrations in mg of glass fibre/m <sup>3</sup> of air. A clear distinction should be made between non-respirable fibres and airborne respirable fibres.

These glass fibre products are not manufactured with diameters that are classified as respirable (fibres with diameters less than 3.0 microns).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Yellow to white fibres bound together in strands.
<b>PH:</b>	Not applicable.
<b>Melting Point (softening):</b>	800oC
<b>Flash Point:</b>	Non-burning.
<b>Auto-ignition/Exposure Limits:</b>	Not applicable.
<b>Electrical Conductivity:</b>	E-glass is an electrical insulator.
<b>Evaporation Rate:</b>	Not applicable.
<b>Specific Gravity (bare glass):</b>	2.6
<b>Percent Volatile:</b>	2% max.
<b>Octanol/Water Partition coefficient:</b>	Not applicable
<b>Solubility:</b>	Insoluble in water. Glass fibre will disperse, to some extent in organic solvents like styrene, acetone, etc. depending on there specific application.
<b>Odour:</b>	None
<b>Boiling Point:</b>	Not applicable.
<b>Freezing Point:</b>	Not applicable.
<b>Flammability:</b>	Not applicable.
<b>Oxidation Risk:</b>	Not applicable.
<b>Autoflammability:</b>	Not applicable.
<b>Vapour Pressure:</b>	Not applicable
<b>Vapour Density:</b>	Not applicable.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable.
<b>Conditions to avoid:</b>	None known.
<b>Incompatibility (Materials to void):</b>	None known.
<b>Hazardous Decomposition Products:</b>	In a sustained fire, sizings and binders may decompose releasing products of combustion. (See section 5).
<b>Hazardous Polymerisation:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

This product is not classified as “dangerous” according to the Seventh Amendment to 67/548/EEC.

<b>Immediate Health Hazards (Acute):</b>	Exposure to continuous filament glass fibres sometimes causes irritation of the skin and, less frequently, irritation of the eyes, nose or throat.
<b>Delayed Health Hazards (Chronic):</b>	Inhalation is the primary route of entry into the human body for glass fibre. Because of the narrow, bending passages of the human nose and pharynx, large diameter fibres (approx. 5 microns or larger) will either be too large to enter the nose, will be filtered out by nasal hairs or will strike the surfaces of the nose or pharynx and stop.

These glass fibre products are not manufactured with diameters that are classified as respirable (fibres with diameters less than 3.0 microns which are capable of traveling into the body to the trachea, bronchi, etc).

All of these glass fibre products have fibre diameters equal to or greater than 4.5 microns and are therefore not physically capable of travelling beyond the nose and pharynx.

In October 1986, the World Health Organisation held an International Symposium on man Made Mineral Fibres. It was concluded that no harmful effects, including lung cancer and non-malignant respiratory disease, could be demonstrated from exposure to continuous glass fibre dust. Continuous glass fibre has been designated by the International Agency for Research on Cancer as a Group 3, “not classifiable as to human carcinogenicity”. This means that evidence is insufficient to link that fibre to cancer.

## 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. THS/CEL-Glass does not use or manufacture any glass fibre product that contains or is manufactured with Class 1 or Class 11 Ozone Depleting Chemicals (CFC's).

## 13. DISPOSAL CONSIDERATIONS

Glass fibre is generally considered to be an inert solid waste not requiring hazardous waste disposal procedures. Local and/or national regulations should be consulted to ensure proper disposal procedures for your location. Glass fibre products which have been used in conjunction with other materials must be disposed of with consideration for disposal requirements for those other materials.

**14. TRANSPORT INFORMATION**

No special precautions or restrictions involving transport or conveyance of glass fibre are known.

**15. REGULATORY INFORMATION**

Glass fibre carries no CA or CAS registry number and no EPA code designation number.

Glass as a generic substance, the E-Glass composition included, has been incorporated in the EINECS (Europe) under No. 65997-17-3.

**14. OTHER INFORMATION**

This product is not manufactured from glass fibre that contains or is manufactured with Class 1 or Class 11 Ozone-Depleting chemicals (CFC's).