Description:

This product is made from flexible, intumescent-coated glass cloth and polyurethane flexible foam. The product has cable entry points to allow ventilation and prevent over-heating of the electrical fitting.

This product comprises of the following materials and therefore is supported by Health & Safety Data Sheets:

- (Appendix 3) Glass Fibre Cloth
- (Appendix 15) LVFR
- (Appendix 12) Polyurethane Flexible Foam (Grey)

Under Regulation 1907/2006 REACH Safety Data Sheets are only required for hazardous substances and mixtures/preparations; Intumescent Systems Ltd is not therefore legally obliged to supply Safety Data Sheets for its articles. Despite this Intumescent Systems Ltd has decided to provide its customers with information regarding the safe use and handling of the products listed above by means of this Safety Data Sheet.

*The information contained in this safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and represents the most up to date information. The information given in this data sheet does not constitute or replace the user’s own assessment of workplace risk as required by other health and safety legislation.*
1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME: Woven Glass Fabric
MANUFACTURER/SUPPLIER: Envirograf
ADDRESS: Envirograf House, Barfrestone, Dover, Kent, CT15 7JG
TELEPHONE/FAX/EMAIL: 01304 842555 01304 842666 sales@envirograf.com
EMERGENCY PHONE NUMBER: 01304 842555 (Monday to Friday 8.30 – 5.30)

2. HAZARDS IDENTIFICATION

There are no major health hazards associated with the fabric; however exposure to glass fibres sometimes causes irritation of the skin and less frequently irritation of the eyes, nose or throat.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: Fibrous glass (E-type, continuous filament) compositions consisting principally of oxides of silicon, aluminium, calcium, boron and magnesium, fused in an amorphous vitreous state

Glass fibre is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Fibrous glass, continuous filament EC: 266/046-0 Not classified
CAS: 65997/17-3

4. FIRST-AID MEASURES

Inhalation: In case of inhalation of glass dust particles or fumes from thermal degradation move into fresh air, if irritation persists seek medical attention

Skin Contact: If irritation is a problem then rinse the affected areas with cool water, then wash gently with mild soap. If glass fibre becomes embedded in the skin then seek medical attention

Eye Contact: Flush eyes with clear water for at least 15 minutes, if irritation persists seek medical attention

5. FIRE-FIGHTING MEASURES

Glass fibre is inherently non-flammable

Suitable extinguishing media: Water, carbon dioxide, dry powder

Protective equipment for Fire fighters: In a sustained fire, self-contained breathing apparatus and protective clothing should be utilised

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: None
Environmental precautions: None
Method for cleaning up: Dust pan and wet brush
7. HANDLING AND STORAGE

Precautions for handling: No special measures, for personal protection see section 8. Glass fibre has electrical isolation properties and so may give some static
Precautions for storage: Store below 25°C in a dry, well ventilated place

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection: None required, if airborne glass fibre concentrations exceed the control limit, respiratory protection for nuisance dust should be provided.
Eye protection: Safety glasses with side shields should be worn.
Hand/Skin protection: Protective gloves, overalls buttoned to fit loosely at the neck and wrists and long trousers may reduce irritation in some operations. Barrier cream may provide further protection from irritation.
Hygiene measures: Wash hands before breaks and at the end of the day. Launder items of clothing contaminated with glass fibre dust separately.
Control limits: Airborne glass dust – TLV = 5mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White woven fibres</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>pH Value</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point (softening)</td>
<td>830° C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>2.6g/cm³</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water. Glass fibre will disperse, to some extent in organic solvents like styrene, acetone etc.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Conditions to avoid: Stable under recommended storage and handling conditions (see section 7)
Material to avoid: Not applicable
Hazardous decomposition products: Carbon dioxide, carbon monoxide, silicone dioxide

11. TOXICOLOGICAL INFORMATION

Inhalation: The products of thermal decomposition, including carbon dioxide and carbon monoxide may cause dizziness and headache after prolonged low level exposure. Pre-existing upper respiratory and lung disease may be aggravated.
Skin contact: No toxicological effect.
Eye contact: No toxicological effect.

This product is not manufactured using glass fibre with diameters that are classified as respirable (fibres with diameters less than 3.0 microns which are capable of travelling into the body to the trachea, bronchi etc)
All of the fibres in this product have fibre diameters equal to or greater than 4.5 microns, and are therefore not physically capable of travelling beyond the nose and pharynx.
12. ECOLOGICAL INFORMATION

Glass fabrics are not readily biodegradable. No known harmful effects on the environment.

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products: Dispose as solid, non-recyclable waste according to local regulations. Contaminated packaging: Empty containers should be transported/delivered using a registered waste carrier for local recycling where possible or waste disposal.

14. TRANSPORT INFORMATION

No special precautions or restriction involving transport are known.

15. REGULATORY INFORMATION

Symbols: None
Safety phrases: None

16. OTHER INFORMATION

History:
Date of revision 6th September 2018
Reason for revision General review
Sections revised: All sections revised

The information contained in the Health and Safety Data Sheet is provided in accordance with the requirements of the most recent REACH Regulations. The product should not be used for purposes other than those shown without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier’s control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. This information contained in the safety data sheet is based on present knowledge and current EU legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.
HEALTH & SAFETY INFORMATION SHEET
APPENDIX 15
LVFR

October 2018. ISSUE 3

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME: LVFR
MANUFACTURER/SUPPLIER: Envirograf
ADDRESS: Envirograf House, Barfrestone, Dover, Kent, CT15 7JG
TELEPHONE / FAX / EMAIL: 01304 842555 01304 842666 sales@envirograf.com
EMERGENCY PHONE NUMBER: 01304 842555 (Monday to Friday 8.30 – 5.30)

2. HAZARDS IDENTIFICATION

HAZARD SYMBOL: EUH208 May produce allergic reaction

HEALTH EFFECTS:
SKIN: May cause slight irritation on prolonged / repeated contact.
EYES: May cause some irritation.
INHALATION: No hazard under normal conditions of use.
INGESTION: Low toxicity.
PHYSICAL/CHEMICAL EFFECTS: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERIZATION: Aqueous polymer coating for exterior surfaces.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methylisothiazol-3(2H)-one</td>
<td>2682-20-4</td>
<td>&lt;0.00006%</td>
<td></td>
<td>H330/H318/H411/H317</td>
</tr>
<tr>
<td>Pyrithione Zinc</td>
<td>13463-41-7</td>
<td>&lt;0.00006%</td>
<td></td>
<td>H301/H330/H318/H400/H410</td>
</tr>
<tr>
<td>1,2-benzisothiazol-3(2H)-one</td>
<td>2634-33-5</td>
<td>&lt;0.00006%</td>
<td></td>
<td>H330/H318/H400/H411/H302/H315/H317</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

SKIN CONTACT: Remove contaminated clothing and wash contaminated skin with soap and water.
EYE CONTACT: Wash immediately with water for 15 minutes. If irritation persists seek medical advice.
INHALATION: Remove the casualty to fresh air.
INGESTION: Rinse out mouth with water and if conscious drink plenty of water. Seek medical attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Foam, carbon dioxide, powder, and water spray.
EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS: None known
SPECIAL EXPOSURE HAZARDS: None known.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Chemical protection suit / gloves / boots and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Use personal protection equipment.
ENVIRONMENTAL PRECAUTIONS: Do not dispose of into surface water or sanitary sewer system.
METHODS FOR CLEANING UP: Scrape up excess and dispose of at an approved site.
7. HANDLING AND STORAGE

HANDLING PRECAUTIONS: Not applicable.
STORAGE CONDITIONS: Store in original closed containers between + 5°C and + 30°C in dry conditions. Avoid extremes of temperature.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS: Refer to current edition of HSE Guidance Note EH40 Occupational Exposure Limits (UK)
ENGINEERING MEASURES: Not applicable.
PERSONAL PROTECTION EQUIPMENT:
RESPIRATORY PROTECTION: Mask where appropriate.
HAND PROTECTION: Gloves.
EYE PROTECTION: Goggles.
SKIN AND BODY PROTECTION: Wearing of closed work clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>White, Red or Yellow.</td>
</tr>
<tr>
<td>Form</td>
<td>Shear thinning paste.</td>
</tr>
<tr>
<td>Odour</td>
<td>Low odour.</td>
</tr>
<tr>
<td>pH as supplied</td>
<td>Approximately 6.5–8.0</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not self-igniting.</td>
</tr>
<tr>
<td>Auto ignition temperature</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.26 to 1.30</td>
</tr>
<tr>
<td>Solubility:</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Miscible.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not applicable.</td>
</tr>
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</table>

Other data

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.
CONDITIONS TO AVOID: Avoid extremes of temperature especially frost and freezing conditions.
MATERIALS TO AVOID: None, under normal conditions of use.
HAZARDOUS DECOMPOSITION PRODUCTS: No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Not applicable

12. ECOLOGICAL INFORMATION

Not applicable
13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations at approved sites.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>UK ROAD/RAIL</th>
<th>IMDG</th>
<th>ICAO</th>
<th>ADR</th>
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<tbody>
<tr>
<td></td>
<td>Not applicable.</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>None hazardous.</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

Supply classification:

| Hazard symbol(s) | EUH208 May produce allergic reaction |

16. OTHER INFORMATION

Recommended use: Coating with fire retardant / intumescent properties.

Further information: Consult technical data sheet.

History

<table>
<thead>
<tr>
<th>Date of printing</th>
<th>05 November 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of issue</td>
<td>October 2018</td>
</tr>
<tr>
<td>Version</td>
<td>3</td>
</tr>
<tr>
<td>Prepared by</td>
<td>Intumescent Systems Limited</td>
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The information contained in the Health and Safety Data Sheet is provided in accordance with the requirements of the most recent REACH Regulations. The product should not be used for purposes other than those shown without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier’s control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. This information contained in the safety data sheet is based on present knowledge and current EU legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

The information contained in this safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and represents the most up to date information. The information given in this data sheet does not constitute or replace the user’s own assessment of workplace risk as required by other health and safety legislation. The information given in this safety data sheet is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product’s properties.
HEALTH & SAFETY INFORMATION SHEET
APPENDIX 12
Polyurethane Flexible Foam (Grey)

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

<table>
<thead>
<tr>
<th>PRODUCT NAME:</th>
<th>Polyurethane Flexible Foam (Grey)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANUFACTURER/SUPPLIER:</td>
<td>Envirograf</td>
</tr>
<tr>
<td>ADDRESS:</td>
<td>Envirograf House, Barfrestone, Dover, Kent, CT15 7JG</td>
</tr>
<tr>
<td>TELEPHONE/FAX/EMAIL:</td>
<td>01304 842555 01304 842666 <a href="mailto:sales@envirograf.com">sales@envirograf.com</a></td>
</tr>
<tr>
<td>EMERGENCY PHONE NUMBER:</td>
<td>01304 842555 (Monday to Friday 8.30 – 5.30)</td>
</tr>
</tbody>
</table>

2. HAZARD IDENTIFICATION

Polyurethane foams are not considered to be hazardous products nor as mixtures of dangerous substances. They are identified as industrial polymers. According to EU Regulations 1907/2006EC (REACH) Polyurethane foams are defined as “articles”

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical description: Poly-addition product of isocyanates, polyether/polyester polyols and water, controlled by catalysts, stabilizers and other additives.

Regulatory information: No labelling is currently required for this material by existing EU Regulation on Classification, Packaging and Labelling of substances and mixtures (1272/2007/EC)

4. FIRST AID MEASURES

Inhalation: In case of inhalation of glass dust particles or fumes from thermal degradation move into fresh air, if irritation persists seek medical attention

Skin Contact: If irritation is a problem then rinse the affected areas with cool water, then wash gently with mild soap.

Eye Contact: Flush eyes with clear water for at least 15 minutes, if irritation persists seek medical attention

5. FIRE-FIGHTING MEASURES

Fire hazard: The product is a combustible material and causes, when burning, intense heat and dense smoke. In a fire, decomposition products such as carbon black, carbon monoxide, carbon dioxide, gaseous hydrocarbons and nitrogen containing products can be generated in various concentrations depending on the combustion conditions

Suitable extinguishing media: Water, carbon dioxide, dry powder, liquid foam

Protective equipment for Fire fighters: Fire fighters should use self-contained breathing apparatus. Should the burning foam come in contact with skin, cool the burned area with water without removing the foam. In case of serious burns call a doctor immediately. In the event of persons inhaling combustion gases, they must be removed from the area and given swift medical attention

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: None
Environmental precautions: None
Method for cleaning up: Dust pan and brush
7. HANDLING AND STORAGE

Precautions for handling: Special protective equipment and clothing is not necessary when handling foam since it does not irritate the skin, eyes or respiratory system, except in those processes where dust is produced.

Precautions for storage: Store away from heat sources. UV rays may cause surface discoloration. This does not affect the physical properties of the foam. Store in compliance with safety standards established by Local Authorities and by specific requirements of the Insurance Companies.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection: None required. In case of dust generating operations skin protective clothes and appropriate respiratory masks are recommended.

Eye protection: Protective goggles should be worn for processes which generate dust.

Hand/Skin protection: None required. In case of dust generating operations skin protective clothes and appropriate respiratory masks are recommended.

Hygiene measures: General hygiene measure should be observed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Cellular material with elastic properties.

Colour: Varies according to manufacture.

Odour: None to mild odour.

Decomposition temperature: Above 180°C.

Flash point: Between 315°C to 370°C.

Thermal energy: 28,000 KJ/kg.

Solubility: Insoluble in water.

10. STABILITY AND REACTIVITY

Conditions to avoid: Stable under recommended storage and handling conditions (see section 7). The product is stable at temperatures between -40°C and +100°C.

11. TOXICOLOGICAL INFORMATION

Oral: There is no evidence that PU foam is toxic in case of ingestion. LD50 (oral-rats) >5000 mg/kg.

Inhalation: The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10mg/m³ 8-hour TWA of inhalable dust or 4mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels.

Skin contact: No adverse effects known following contact with PU Foam.

Eye contact: Dust particles can cause mechanical irritation. Rinse with water to remove dust.

Microbiological contamination: PU foam is sterile when manufactured.

12. ECOLOGICAL INFORMATION

Biodegradability: Dependant on the type of PU foam, the product is not degradable or degrades slowly.

Additional ecological data: In case of a standard foam fire, the particles that fall in the water are harmless they are sieved out of the water and/or disintegrated in the water treatment plant. Living organisms in the water are not endangered. PU flexible foams do not contain Ozone depleting substances and are not produced using products regulated by pertinent legislation.
13. DISPOSAL CONSIDERATIONS

Production trim: Trim polyurethane foam and off-cuts can usually be recycled by several methods, provided they are clean and sorted.
Post-consumer waste: A major recycling option exists via rebonding if a series or technical and economic conditions are met. If recycling is not possible, scrap or post-consumer PU foam waste can be used for energy recovery or be disposed of at licensed landfill sites or by incineration under controlled conditions in agreement with EU and National regulatory provisions and following advice from the Local Waste Regulation Authority.
Legislation: Under EU environmental legislation, there are no special requirements for the disposal of conventional PU foam.

14. TRANSPORT INFORMATION

Labelling: PU foam is not classified for conveyance or supply under the International Agreements on Carriage of Dangerous Goods. The product is not classified as hazardous for any mode of transportation under current EU/UN regulations.
Measures: No special steps need to be taken for the transportation of PU foam.

15. REGULATORY INFORMATION

Symbols: None
Safety phrases: None

16. OTHER INFORMATION

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