

SAFETY DATA SHEET



ENVIROGRAF®

HS053-05-2019

Product Number: 53

Under Floor Fire Barrier

Description:

Under floor fire barrier UF60 is made from graphite impregnated cloth covered with a 200g foiled cloth, giving 60 minutes fire and insulation protection. The UF104 also includes internal wire mesh reinforcement and achieves 104 minutes insulation, integrity and load bearing. If sound insulation is required 40mm thick soundproofing sponge can be ordered to suit.

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

- (Appendix 3) Glass Cloth
- (Appendix 15) LVFR
- (Appendix 35) Graphite Mix
- (Appendix 43) Foil Coated Glass Cloth
- (Appendix 12) Flexible Foam – if sound insulation is required
- Metal mesh – no data available

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.

HEALTH & SAFETY INFORMATION SHEET
APPENDIX 3
WOVEN GLASS FABRIC

Issue 3. 06 September 2018

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME:	Woven Glass Fabric
MANUFACTURER/SUPPLIER:	Envirograf
ADDRESS:	Envirograf House, Barrestone, 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

Appearance:	White woven fibres
Colour:	White
Odour:	None
pH Value:	Not applicable
Melting point (softening):	830° C
Flash point:	Not applicable
Auto ignition temperature:	Not applicable
Explosive properties:	Not applicable
Specific gravity:	2.6g/cm ³
Solubility:	Insoluble in water. Glass fibre will disperse, to some extent in organic solvents like styrene, acetone etc.

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.

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

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

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

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

UK ROAD/RAIL	Not applicable. None hazardous.
IMDG	Not applicable. None hazardous.
ICAO	Not applicable. None hazardous.
ADR	Not applicable. None hazardous.

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

Date of printing	20 May 2019
Date of issue	October 2018
Version	3
Prepared by	Intumescent Systems Limited

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 DATA SHEET
APPENDIX 35
GRAPHITE MIX INTUMESCENT MATERIAL

Issue 3, July 2018

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME:	Graphite Mix Intumescent Material
MANUFACTURER/SUPPLIER:	Intumescent Systems Ltd
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 STATEMENTS:

1. None for the non-woven products (manufactured articles) covered by this MSDS
2. None for dust and fibres released during handling

Cutting through the material and surface scuffing may release small amounts of airborne fibre, clay and carbon dust which are mechanically irritant to skin, eyes and upper respiratory system.

As with any dust, pre-existing upper respiratory symptoms and lung diseases may be aggravated.

Under the European chemicals Regulation 1907/2006 REACH this product is considered to be an article. These materials do not contain any substances of very high concern or substances intended to be released under normal foreseeable conditions of use.

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 non-woven products. 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 Material Safety Data Sheet

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPOSITION:

Substance	CAS / EC No	% by weight	Classification and labelling Regulation EC 1272/2008	Classification and labelling Directive 67/548/EEC
Mineral Wool*	287922-11-6	20 – 85	Not Classified	Not Classified
Exfoliating Graphite	7782-42-5/231-995-3	4.0 – 60	Not Classified	Not Classified
Polymeric Binder and Self Adhesive coating	N/A - polymer	5.0 - 30	Not Classified	Not Classified

* Man-made vitreous silicate fibres of random orientation with alkaline oxide and alkali earth oxides (Na₂O + K₂O+CaO+MgO+BaO) content greater than 18% by weight and fulfilling one of the Note Q conditions for increased bio-solubility.

Mineral wool fibres satisfying the Note Q conditions for increased bio-solubility are not classified as carcinogenic according to Directive 97/69/EC and Regulation EC 1272/2008 (page332 of the JOCE L353 of 31 Dec 2008)

Self-adhesive products are supplied faced on one side with a Kraft release paper.

4. FIRST AID MEASURES

SKIN: Rinse affected areas with water and wash gently with soap. Do not use detergent.

EYES: Flush eyes with large quantities of water, Have eye bath readily available in areas where eye contact may occur. Seek medical attention if irritation continues.

INGESTION: Drink plenty of water. Seek medical advice.

INHALATION: Remove to fresh air, drink water and clear throat and blow nose to evacuate fibre/dust. Seek medical attention.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use extinguishing agent suitable for type of surrounding combustible materials. Do not inhale products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Do not allow dust to be wind blown.

Unwanted product should be collected and stored in sealed bags.

Do not use compressed air to remove dust or fibres from equipment

Dust/fibre should be removed using a suitable vacuum cleaner with HEPA exhaust air filtration.

The collected deposits and used vacuum cleaner bags should be sealed into poly-bags before disposal.

If sweeping is required the area should be thoroughly damped down with water before sweeping commences to prevent dust and fibres becoming airborne during sweeping

7. HANDLING AND STORAGE

HANDLING: Keep dust generation to a minimum.

STORAGE: Store dry and cool. Keep in original wrapping until required for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

APPLICABLE OCCUPATIONAL EXPOSURE LIMITS: from HSE EH40/2005 – second edition 2011

MACHINE MADE MINERAL FIBRE:

(excluding Refractory Ceramic Fibre and Special Purpose Fibres): 2.0 fibres/ml & 5 mg/m; (8 hr TWA)

FINE CARBON DUST: 3.5 mg/m; (8 hr TWA) and 7 mg/m; (15 minute reference))

RESPIRATORY PROTECTION: Use local ventilation systems where available. If workplace exposures exceed the limits wear disposable dust respirator to EN149:2001 FFP2 minimum

HAND PROTECTION: Use of disposable nitrile rubber gloves is recommended.

EYE PROTECTION: Wear goggles or safety glasses with side shields. Do not wear contact lenses.

SKIN PROTECTION: Wear overalls that are loose fitting at the neck and wrists.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Flexible Dark Grey or Black fibrous mat

DENSITY: 200 - 500 kg/m³

EXPANSION: Rapid volumetric expansion occurs when product is heated above 200°C

FLAMMABILITY: Material will sustain combustion for a short period until organic binder (and SAB coating) is burnt out or resulting expansion self-extinguishes.

10. STABILITY AND REACTIVITY

STABILITY / CONDITIONS TO AVOID: Stable.

MATERIALS TO AVOID: Strong oxidizing agents, strong alkalis and hydrofluoric acid.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition of the polymeric binder will occur at temperature above 200°C releasing smoke, H₂O, CO, CO₂ and hydrocarbons. When heated above 250°C the graphite will expand resulting in a thermally insulation char.

HAZARDOUS POLYMERISATION: Will not occur

11. TOXICOLOGICAL INFORMATION

MINERAL WOOL FIBRE: Coarse fibres: in common with other man-made mineral fibres the vitreous silicate fibres in this product are mechanical irritants which may result in temporary irritation of the throat, eyes or skin. Respirable fibres: the mineral wool fibres in these products contain fibres which are less than 3.0µm diameter and greater than 5.0µm long and which are classified as respirable.

Animal studies: short term inhalation studies of rats exposed to high levels of stone wool fibres have shown that the long fibres are biodegradable and quickly disappear from the lungs.

Human Epidemiological studies: large morbidity and mortality studies of both European and North American mineral wool manufacturing workers have been conducted with traditional mineral wools. The studies found no significant evidence of non-malignant lung disease (e.g. fibrosis) The studies did not establish a causal relationship between exposure to traditional mineral wools and malignant diseases (lung cancer or mesothelioma). The particular mineral wool fibre used in the products covered by this SDS is based on a new formulation with increased bio-solubility giving even more rapid clearance of fibres from the lungs compared with traditional mineral wools.

GRAPHITE: Powdered graphite is non-toxic. High levels of airborne graphite dust may be a mechanical eye irritant. Skin contact with graphite dust may cause temporary irritation due to mechanical effects; repeated prolonged exposures may lead to dermatitis. Airborne graphite dust is an upper respiratory irritant; exposures may aggravate pre-existing upper respiratory and lung diseases. Cases of pneumoconiosis, pulmonary fibrosis and emphysema have been reported in workers following prolonged exposures to high levels of airborne graphite dust.

POLYMERIC BINDER AND SELF ADHESIVE COATING: The Polymeric binder and SAB coating are considered to be non-hazardous.

12. ECOLOGICAL INFORMATION

This product will remain stable over time with the inorganic components remaining inert.

13. DISPOSAL CONSIDERATIONS

Waste is not classified as a hazardous waste and may be disposed of at a normal licensed industrial waste site. Local regulations should be considered. Waste should be bagged or suitably contained for disposal to prevent any dusts being wind blown during disposal.

14. TRANSPORT INFORMATION

Not regulated for Transport. Ensure that dust is not windblown during transportation. Ensure that dust or fibres are not wind-blown during transportation.

15. REGULATORY INFORMATION

Product Hazard Classification according to Directive 67/548 EEC: Not classified

Product Hazard Classification according to Regulation CE1272/2008: Article - not classified

16. OTHER INFORMATION

Notes: revised and reissued with minor changes 3rd December 2016

Further information regarding working with man made mineral fibres and measurement techniques may be obtained by referring to Guidance Note EH46 1990 and NDHS59 1998 published by the UK, Health & Safety Executive.

HEALTH & SAFETY INFORMATION SHEET
APPENDIX 43
FOIL COATED GLASS CLOTH

Issue 3. 26/7/2018

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME:	Foil Coated Glass Cloth
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

2. HAZARD IDENTIFICATION

In a sustained fire situation the coating will burn to give smoke containing carbon monoxide, carbon dioxide, hydrocarbons, nitrogen based and halogen based gases.

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, aluminium Foil and neoprene adhesive.

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
Possible trace retained toluene = 100ppm

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White woven fibres / Aluminium Sheet
Colour:	White / Silver
Odour:	None
pH Value:	Not applicable
Melting point (softening):	830° C
Flash point:	Not applicable
Auto ignition temperature:	Not applicable
Explosive properties:	Not applicable
Specific gravity:	2.6g/cm ³
Solubility:	Insoluble in water. Glass fibre will disperse, to some extent in organic solvents like styrene, acetone etc.

10. STABILITY AND REACTIVITY

Conditions to avoid: Stable under recommended storage and handling conditions (see section 7)

Material to avoid: Basic phosphates, alkalis, hydrofluoric acid

Hazardous decomposition products: Thermal decomposition: Carbon dioxide, carbon monoxide, trace amounts (ppm) hydrocarbons, nitrogen based and halogen based gases.

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

None required

16. OTHER INFORMATION

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 12

Polyurethane Flexible Foam (Grey)

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME:	Polyurethane Flexible Foam (Grey)
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. 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 & 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°

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 of 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

Risk phrases: None

Safety phrases: None

16. OTHER INFORMATION

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.
