



ENVIROGRAF®

Product number: **90**
Fire and Smoke Drop Curtain

HEALTH & SAFETY DATA INFORMATION

The Envirograf Fire and Smoke drop curtain has been designed and developed to stop the spread of flames offering 60 minutes fire integrity. The curtain can be supplied in both surface and recess designs depending on location. Wired into the fire alarm system the curtain will close in a fire and retract when the system is reset.

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

- Fabricated zintec & mild steel sheet metal 1.2mm to 3mm thick (N/A)
- Appendix 2 (Fire proof sponge)
- Appendix 7 (Powder Coating)
- Appendix 3 (Silicone glass cloth)
- 230v Fail safe motor (N/A)
- Brushes (N/A)
- Appendix 1 (Intumescent multigraf material)
- Barrel (N/A)
- Control unit (N/A)

*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.



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HEALTH & SAFETY DATA SHEET

Appendix 1

MULTIGRAF INTUMESCENT MATERIAL

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME: Multigraf Intumescent Material
 MANUFACTURER/SUPPLIER: Envirograf
 ADDRESS: Envirograf House, Barfreestone, Nr. Dover, Kent, CT15 7JG
 TELEPHONE/FAX: 01304 842555 01304 842666
 EMERGENCY PHONE NUMBER: 01304 842555

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CONSTITUTION

Mineral Wool Fibre	20-70	%	by	weight
Exfoliating Graphite	20-60	%	by	weight
Organic binder (including adhesive coating)	5.0-30	%	by	weight

3. HAZARDS IDENTIFICATION

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.

Based on animal studies, excessive exposure to man made mineral fibre dust may cause lung damage (fibrosis) and tumours.

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

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

Store product in original wrapping until required for use.
 Do not allow dust to be wind blown. Do not use compressed air to blow dust or fibres.
 Unwanted product should be collected and stored in sealed bags. Dust/fibre should be removed using a suitable vacuum cleaner with HEPA exhaust air filtration and disposal collection bags; used bags to be sealed before disposal. If sweeping is required the area should be damped down with water before brushing

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:

MAN MADE MINERAL FIBRE:	*ME	2.0 fibres/ml & 5 mg/m; (8 hr TWA)
FINE CARBON DUST:	*OES	3.5 mg/m; (8 hr TWA) and 7 mg/m; (STEL) *(UK Health & Safety Executive - OEL EH40/98)

RESPIRATORY PROTECTION:	Wear disposable dust respirator (eg. 3M 8810 or equivalent).
HAND PROTECTION:	Use of 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 Grey fibrous mat with black speckle
DENSITY:	200 - 500 kg/m;
EXPANSION:	Rapid volumetric expansion occurs when product is heated above 100°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:	Combustion products are HRO, CO, COR and hydrocarbons.

11. TOXICOLOGICAL INFORMATION

The International Agency for Research on Cancer (IARC) has classified Mineral Wool Fibre as possibly carcinogenic (Group 2B).

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 wind blown during transportation.

15. REGULATORY INFORMATION

LABELLING		
DANGER CLASSIFICATION	-	
CONTAINS:		-
R PHRASES:		-
S PHRASES:		-
NATIONAL REGULATIONS:	-	

16. OTHER INFORMATION

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.

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DATA INFORMATION SHEET FIRE PROOF SPONGE Appendix 2

SECTION 1 **INGREDIENTS**

Fire Proof Sponge is manufactured by post treatment of flexible polyurethane with flame retardants, particulate filler and a polymeric bonding agent

SECTION 2 **PHYSICAL & SAFETY DATA**

Appearance	Cellular solid, usually black
<i>Typical Physical Properties</i>	
Density (kg/m ³)	90 - 100
Hardness	130 - 180
Tensile strength (Newton's) Min	70
Elongation at break % Min	90
<i>Typical Flammability Properties</i>	
BS476: Part 5	Non ignition
BS476: Part 6	Fpi<12
BS476: Part 7	Class '1'
BS476: Part 6+7	Class '0'

SECTION 3 **LABELLING AND CONVEYANCE**

Does not classify for conveyance or supply under the Carriage of Dangerous Goods (Classification, packaging and labelling), and Use of Transportation Pressure Receptacles Regulations 1996.

SECTION 4 **PROTECTIVE MEASURES**

Ventilation	No ventilation is required but precautions may be required if material is involved in operation which may produce dust such as baffling.
Respiratory Protection	Not necessary.
Eye Protection	Wear protective goggles when process generates dust.
Protective Clothing	Not required.

SECTION 5 **MEASURES IN CASE OF ACCIDENT & FIRES**

In case of spillage	Pick up or sweep up as for any other inert material.
Extinguish Media	Water, CO ₂ , foam.
In case of fire	Under extreme temperatures, Sponge will decompose and omit toxic gases. Sound alarm, evacuate building. Fire fighters should wear positive pressure, self contained breathing apparatus.

First Aid Procedures:

Ingestion	No adverse effects anticipated.
Eye Contact	Mechanical effects only, irrigate with water to remove dust.
Skin	No adverse effects anticipated.
Inhalation	No adverse effects anticipated.

SECTION 6 TOXICITY & HEALTH HAZARD DATA

Occupational Exposure Limits	None
Ingestion	Not harmful if swallowed
Eye Contact	Unlikely - dust may cause irritation due to mechanical action
Skin Contact	Solid - is non irritating
Inhalation	No fumes

SECTION 7 ECOLOGY DATA

Degradation	In water the product should not present problems due to its extremely low solubility. In soil, almost inert, may slowly biodegrade due to bacterial and fungal activity.
CFC Content	CFC's are not used in any Sponge.
Disposal:	The disposal of waste foam should comply with local and government regulations, ie. Approved land fill or approved incineration.

SECTION 8 FURTHER INFORMATION

The levels of fire resistance are detailed in Section 2. If a sufficient large ignition source is used the polymeric content of the product will degrade and toxic gases and heat will be generated.

This product is classified as non hazardous as defined in Chemical (hazard information and packaging for supply) Regulations 1994 (CHIP2).

It is recommended that the following Health and Safety guidance booklet is referred to *HS(G)92 Safe Use and Storage of Cellular Plastics.



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Appendix 3
Woven Glass Fabric

DATA SHEET

Description	Woven glass fabric Starch weave locked
Ends/cm	18.9
Picks/cm	11.1
Weave	4 end satin
Thickness	0.40 mm
Wt/m ²	430 g/m ²
Warp count	1360 d'tex
Weft count	1360 d'tex
Fibre type	Cont. fil glass
Filament diameter	9μ
Warp tensile strength	960 N/cm
Weft tensile strength	720 N/cm
Finish	Starch weave lock

Note : All figures quoted are nominal values



ENVIROGRAF®

HEALTH & SAFETY DATA SHEET (Appendices 7) Electrostatic powder coating

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME: Electrostatic powder coating
MANUFACTURER/SUPPLIER: Envirograf
ADDRESS: Envirograf House, Barfreestone, Nr. Dover, Kent, CT15 7JG
TELEPHONE/FAX: 01304 842555 01304 842666
EMERGENCY PHONE NUMBER: 01304 842555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environment hazard within the meaning of the chemicals (Hazard information & packaging for supply) regulations CHIP.

Components	%ww	EC number	CASnr	Symb	Risk
Hexamethylenetetra - Amine	0.1-1.0	202-905-8	100-97-0 F	R11, R42/43	
Nitrilotriacetic acid	< 10	205-355-7	139-13-9 Xn	R22, R36	

3. HAZARDS IDENTIFICATION

This product is not classified as dangerous according to the chemical (Hazard information & packaging for supply) regulations CHIP. However it may produce an allergic reaction. Precautions should be taken to prevent the formation of dust in concentrations above flammable, explosive or OEL's

4. FIRST AID MEASURES

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation:

Remove to fresh air, keep the patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in the recovery position and seek medical advice.

Eye Contact:

Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart, and seek medical advice.

Skin Contact:

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do NOT use solvents or thinners.

Ingestion:

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do **NOT** induce vomiting.

5. FIRE FIGHTING MEASURES

Extinguishing Media:

Recommended: Alcohol resistant foam. CO2 blanket, water spray/mist. Not to be used: High-pressure inert gas (e.g. CO2), water jets

Recommendations:

Fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Exposure to decomposition products may be a hazard to health. Appropriate self-contained breathing apparatus may be required. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate the area. Exclude non-essential personnel. Avoid breathing dust. Refer to protective measures listed in Sections 7 and 8. Contain and collect spillages with an electrically protected vacuum cleaner or by wet brushing and place in a closed container for disposal in accordance with the waste regulations (see Section 13). Do not use a dry brush as dust clouds or static can be created. Do not allow to enter drains or watercourses. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the relevant environmental agency.

7. HANDLING AND STORAGE

Handling:

This product contains a respiratory and skin sensitiser. Advice should be taken from a competent occupational health practitioner on assessment and health surveillance of employees exposed to this product. The HSE's Employment Medical Advisory Service can advise on competence.

Precautions should be taken to prevent the formation of dusts in concentrations above flammable, explosive or occupational exposure limits. Electrical equipment and lighting should be protected to appropriate standards and to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Keep the container tightly closed. Exclude sources of heat, sparks and open flame. Avoid eye contact.

Avoid the inhalation of dust, particulates and spray mist arising from the application of this preparation. Treatments such as sanding, welding, burning off etc. of paint films may generate hazardous dust and/or fumes. Work in well ventilated areas. Use suitable personal (respiratory) protective equipment, as necessary.

Smoking, eating and drinking should be prohibited in areas of storage and use.

Comply with health and safety at work laws. For personal protection see Section 8.

Always keep in containers made of the same material as the supply container.

Good housekeeping standards and regular safe removal of waste materials will minimise the risks of spontaneous combustion and other fire hazards. The product may charge electrostatically. Use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be electrically conductive. The Manual Handling Operations Regulations may apply to the handling of containers of this product. Refer to the guide weight indicated on the container when carrying out assessments.

Storage: Observe the label precautions. Store between 5 and 25°C in a dry, well-ventilated place away from sources of heat, ignition and direct

sunlight. No smoking. Prevent unauthorised access. Containers that are opened should be properly resealed and kept upright to prevent leakage. The principles contained in the HSE guidance note Chemical Warehousing: Storage of Packaged Dangerous Substances should be observed when storing this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

This product contains a respiratory and skin sensitiser. Advice should be taken from a competent occupational health practitioner on assessment and health surveillance of employees exposed to this product. The HSE's Employment Medical Advisory Service can advise on competence.

Engineering Measures: Avoid the inhalation of dusts. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of dusts below

the relevant occupational exposure limit, suitable respiratory protective equipment should be worn (see 'personal protection' below).

Exposure Limits: Coating powders should be treated as nuisance dusts and the general 8 hour time weighted average, occupational exposure standards for dusts are:-

Inhalable dusts 10 mg/m³

Respirable dusts 4 mg/m³

Personal Protection: All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous

substances must be selected to meet the requirements of the COSHH Regulations.

Respiratory Protection:

Suitable respiratory protective equipment should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the occupational exposure limit and engineering controls and methods cannot reasonably be improved.

Hand Protection:

For prolonged or repeated contact, use barrier cream or general industrial gloves. Suitable materials include lightweight vinyl or nitrile rubber gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must

be followed. Breakthrough time of gloves not applicable to powder coatings. Barrier creams may help to protect exposed areas of the skin but are not substitutes for full physical protection. They should not be applied once exposure has occurred.

Eye Protection:

Eye protection designed to protect against exposure to dusts should be worn when there is a likelihood of exposure.

Skin Protection:

Cotton or cotton/synthetic overalls or coveralls are normally suitable. Care should be taken in the selection of protective clothing to ensure that inflammation and irritation of the skin at the neck and wrists through contact with the powder are avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: fine powder

Specific gravity: 1.2 - 1.9

Minimum explosive concentration (LEL): 20-70 g/m³ *

Solubility in water: insoluble

Minimum ignition temperature: 400°C

Minimum ignition energy: 5-20 mJ

(Coating powders, being fine organic materials can give rise to dust explosions, typically rated St 1)

* Determined LELs on a range of typical coating powders lie between these values, depending on the specific physical and chemical properties

10. STABILITY AND REACTIVITY

Stable under the recommended storage and handling conditions (See Section 7). In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide and oxides of nitrogen may be produced.

11. TOXICOLOGICAL INFORMATION

Stable under the recommended storage and handling conditions (See Section 7). In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide and oxides of nitrogen may be produced.

12. ECOLOGICAL INFORMATION

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses or be deposited where it can affect ground or surface waters. The preparation has been assessed following the Chemicals (Hazard Information and Packaging for Supply) Regulations and is not classified as dangerous for the environment. The Air Pollution Control requirements of regulations made under the Environmental Protection Act may apply to the use of this product.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.

Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made under the

Environmental Protection Act. The Environment Agency for England and Wales has determined that all coating powder wastes should be classified under the European

Waste Catalogue entry 08 02 01 coating powders, regardless of its hazardous properties. Where the waste would otherwise be classified as hazardous, the guidance given in Sections 1.8 and 1.9 of the Waste Management Duty of Care Code of Practice should be followed.

14. TRANSPORT INFORMATION

Transport within the user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage. This product is not classified as dangerous for carriage. It is primarily a mixture of polymer resins, hardeners, pigments and fillers and is not classified as explosive, oxidising, toxic, infectious, radioactive, corrosive or magnetic and its flash point (closed cup) is higher than 60.5°C (141°F) so according to IATA and ICAO annex 18 regulations, it is proved not to be dangerous for air transport.

15. REGULATORY INFORMATION

The product is determined as not being dangerous according to the requirements of the Chemicals (Hazard Information & Packaging for Supply) Regulations and is labelled as follows:

Label classification: none

Risk phrases: none Special

P phrases P99: Contains hexamethylenetetramine. May produce an allergic reaction

Safety phrases: S20/21: When using, do not eat, drink or smoke

S22: Do not breathe dust S38: In case of insufficient ventilation, wear suitable respiratory equipment

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work etc Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

16. OTHER INFORMATION

Texts of Risk phrases listed in section 2 are:

R11: Highly flammable

R22: Harmful if swallowed

R36: Irritating to eyes

R42/43: May cause sensitisation by inhalation and skin contact

The information in this safety data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information and Packaging for Supply) Regulations.

The product should not be used for purposes other than those shown in Section 1 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. The information contained in this safety data sheet is based on the present state of knowledge and current national 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 application.

Further information and relevant advice can be found in:

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002:1689)

The Application of Powder Coatings by Electrostatic Spraying (Code of Safe Practice) from the British Coatings Federation (01372 360660)

The Manual Handling Operations Regulations 1992 (SI 1992:2793)

Chemical Warehousing: Storage of Packaged Dangerous Substances HS(G)71

The Environmental Protection (Duty of Care) Regulations 1992 (SI 1992:2839)

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (SI 2002:2677)

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