SAFETY DATA SHEET



HS110-Conduit Sleeve-09-2018

Product Number: 110

Firoblok® Intumescent Conduit Sleeves

Description:

An intumescent sleeve made the same size as 20mm and 25mm conduit so that it will fit into sockets or BESA Boxes.

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

- (Appendix 1) Multigraf intumescent material
- (Appendix 43) Foiled coated glass cloth
- (Appendix 55) PVC sheeting
- (Appendix 81) Double sided self-adhesive tape

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 DATA SHEET APPENDIX 1

MULTIGRAF INTUMESCENT MATERIAL

Issue 3. July 2018

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME: Multigraf Intumescent Material 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.

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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 grater that 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 Grey fibrous mat with black speckle

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

<u>Product Hazard Classification according to Directive 67/548 EEC:</u> 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.

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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

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/cm3

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 55

PVC SHEETING

26th July 2018 Issue 3

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME: PVC Sheeting - Laminate

MANUFACTURER/SUPPLIER: Envirograf

ADDRESS: Envirograf House, Barfrestone, Dover, Kent, CT15 7JG
TELEPHONE / FAX / EMAIL: 01304 842555 01304 842666 sale@envirograf.com

EMERGENCY PHONE NUMBER: 01304 842555

2. HAZARDS IDENTIFICATION

Description of hazards: No hazards under normal conditions of use

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization:

The article is based on polyvinyl chloride, plasticizer (DOTP) and additives.

DOTP: bis (2-ethylhexyl) tereftalaat, CAS-nr: 6422-86-2

REACH relevant information (in accordance to art. 33 of the REACH-regulations):

The article contains no substances included on the candidate list (status 27-06-2018)

4. FIRST AID MEASURES

In general: no need for particular precautionary measures.

5. FIRE FIGHTING MEASURES

Suitable extinguisher means: Water, foam, CO2 and dry extinguishing agents

Special hazards: Under fire conditions, fumes can contain carbon monoxide (CO), carbon dioxide (CO2), water vapour and hydrogen chloride (HCI). Explosive mixtures can arise due to decomposition.

Personal protective equipment: In case of fire, a breathing protection with combination filter ABEK-CO NO and rubber boots are to be worn. In case of high concentration of fumes, a self contained breathing apparatus is to be used.

6. ACCIDENTAL RELEASE MEASURES

Not applicable for such articles.

7. HANDLING AND STORAGE

Technical protective measures: No need for particular precautionary measures under normal condition of use. **Protection against fire and explosion:** General regulations for preventative protection are recommended. Under unfavourable circumstances, especially in case of low relative humidity, a static electricity charge of the film can arise during unwinding.

Storage: In order to keep the properties of the film, it's advised to store it cool and dry in closed rooms. Do not expose directly to sun radiation and heat sources. The film is resistant to higher temperatures but preferably not stored over 30°C or below 10°C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Technical measures: Measures against static electricity are to be taken (see; "handling and storage"). During

thermal processing sufficient ventilation should be provided.

Personal protective equipment: Not necessary.

Skin protection: Dermatologic and allergenic reactions, sensitivity and irritation are not known.

Eye protection: Not necessary.

Industrial hygiene measures: No need for particular precautionary measures.

9. PHYSICAL AND CHEMICAL PROPERTIES

Solid film

Odour: slight and typical characteristic odour

Explosive limits: none, see par. 7

Density (23°C): about 1.3 / 1.5 gr/cm³

Solubility in water: Practically not soluble

Further details: None

10. STABILITY AND REACTIVITY

Dangerous reactions: None

Thermal decomposition: None, under normal conditions of use. In not suitable processing conditions, a thermal decomposition cannot be excluded. Thermal decomposition may produce carbon monoxide, carbon

dioxide, nitrogen oxides and flammable mixtures.

Further details: None

11. TOXICOLOGICAL INFORMATION

According to present knowledge, no harmful effects are known at adequate use of the product.

12. ECOLOGICAL INFORMATION

Under normal conditions of use, no negative effects on the environment and no hazards have been reported.

Recycling: Recycling of the film is possible.

Disposal:

Film: can be disposed with household waste, if in compliance with local or state laws and regulations. **Packaging:** can be disposed with household waste, if in compliance with local or state laws and regulations

13. DISPOSAL CONSIDERATIONS

Product residues: Gather into waste containers. Destroy according to the rules given by Local Authorities.

Packaging waste: Collect and destroy according to local rules.

14. TRANSPORT INFORMATION

Not dangerous goods according to transport regulations.

15. REGULATORY INFORMATION

Labelling:

- Labelling according to EC-regulation: no labelling is necessary.
- Labelling according to hazardous material regulation: no labelling is necessary.
- Water hazard classification: not water hazardous.

Other regulations, limitations: None

Transport information: No dangerous goods according to transport regulations.

The material is conforming to the:

- Regulation (EC) no. 1907/2006 (REACH)
- European Toy Norm NEN-EN 71-3, NEN-EN 71-9
- European Directive 94/62/EC on packaging and packaging waste
- The Packaging Regulations 1998 No.1165 (UK)
- Directive 2002/95/EC (RoHS), repealed by Directive 2011/65/EU

16. OTHER INFORMATION

Unless otherwise stated, this sheet applies for sheeting in unshaped condition.

This information is based on our present knowledge and our experience with the product but is in no way exhaustive. Sheet deals with the product in the state as described in the specifications. In case of combination or mixing with other products from case to case it has to be investigated whether no new risks are introduced.

No case accepted, the user of the product is obliged to follow local laws and regulations with respect to working place hygiene and protection. The details within this document do not have the meaning of property assurances. For warranties and liabilities our general terms of delivery and sales conditions are valid.

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 81

DOUBLE SIDED SELF ADHESIVE TAPE

26th July 2018. ISSUE 2

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME: Double sided self-adhesive tape

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 (8.30-5.30 Monday to Friday)

2. HAZARDS IDENTIFICATION

Not classified as dangerous according to EC Directives

3. COMPOSITION / INFORMATION ON INGREDIENTS

Main constituents:

Support: PES/PVA scrim

Interliner: Yellow release paper 90 g/m² Adhesive: Modified polyacrylic

4. FIRST AID MEASURES

No recommendation given

5. FIRE-FIGHTING MEASURES

Appropriate extinguishing agents: spraying water, dry extinguishing agent, foam

6. ACCIDENTAL RELEASE MEASURES

Not applicable

7. HANDLING AND STORAGE

The products should be stored in their original packaging under dry conditions, ideally at room temperature but not warmer than 30°C. High relative humidity and direct sunlight must be avoided at all costs. Generally the cooler the product is stored the better the product quality.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Protective equipment: Not required

9. PHYSICAL AND CHEMICAL PROPERTIES

Shape: Logs 3" core Colour: Transparent Odour: Typical Density: 0.8 – 1.0 g/cm³

10. STABILITY AND REACTIVITY

This adhesive is stable & does not react with materials it would normally come into contact with in storage and use

11. TOXICOLOGICAL INFORMATION

Assuming appropriate use, no harmful effects have ensued.

12. ECOLOGICAL INFORMATION

Adhesive, support and interliner are almost completely without solvents, chlorides and heavy metals. Therefore, special disposal measures are not necessary. The product is not considered to be environmentally dangerous.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local authority regulations

14. TRANSPORT INFORMATION

Not regulated for transport

15. REGULATORY INFORMATION

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

Product Hazard Classification according to Regulation CE1272/2008:

Article - not classified

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.