# COSHH DATA SHEET

ENVIROGRAF®

HS146-10-2015

## Product Number: 146

## EN/F Powerful Flexible Filler Kit for Pipes & Cables

**Description:**

The Envirograf® EN/F kit consists of 3 tubes of intumescent sealant; two tubes of dark grey powerful intumescent graphite compound (EN/F1) and one tube of white intumescent sealant for use as a decorators finish (EN/F2). Both EN/F sealant types are water-based materials which become water-resistant once cured.

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

- Appendix 26 (AM Acrylic Mastic)
- Appendix 35 (Graphite Mix)

*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 26**
*AM ACRYLIC ACOUSTIC INTUMESCENT MASTIC*

Issue3. June 2015

## 1. IDENTIFICATION OF THE PREPARATION AND COMPANY

| | |
|---|---|
| **PRODUCT NAME:** | AM Acrylic Acoustic Intumescent Mastic |
| **MANUFACTURER/SUPPLIER:** | Intumescent Systems Ltd |
| **ADDRESS:** | Envirograf House, Barfrestone, Nr. Dover, Kent, CT15 7JG |
| **TELEPHONE / FAX / EMAIL** | 01304 842555 01304 842666 sales@envirograf.com |
| **EMERGENCY TELEPHONE NUMBER:** | 01304 842555 (Monday to Friday 8.30 – 5.30) |

## 2. HAZARDS IDENTIFICATION

Not classified as dangerous according to the CHIP regulations. Also refer to section 11

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances presenting a health hazard within the meaning of the CHIP Regulations or which are assigned Occupational Exposure Limit values:-

| Name | Einics No. | Conc. Range | Symbol* | R-Phrases* |
|---|---|---|---|---|
| - | - | - | - | - |

*for full text see section 16

## 4. FIRST AID MEASURES

**GENERAL:** 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. No emergency care anticipated.
**Skin Contact:** Wash skin thoroughly with soap and water or a recognised skin cleaner. DO NOT USE SOLVENT OR THINNERS.
**EYE CONTACT:** Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes holding eyelids apart, and seek medical advice.
**INGESTION:** If accidentally swallowed wash mouth with water and give water to drink. DO NOT induce vomiting.

## 5. FIRE FIGHTING MEASURES

This material is non combustible in emulsion form. Use appropriate extinguisher for the surrounding conditions.

## 6. ACCIDENTAL RELEASE MEASURES

Refer to protective measures listed in sections 7 and 8. Contain and collect spillages with non-combustible absorbent materials e.g. sand, earth, vermiculite, diatomaceous earth, and place in a suitable container for disposal in accordance with the waste regulations (see section 13). Do not allow to enter drains or water courses. 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 Environment Agency.

## 7. HANDLING AND STORAGE

**HANDLING:** Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in areas of storage and use. For personal protection see Section 8. Keep containers closed when not in use. Never use high pressure to empty, the container is not a pressure vessel. Ensure good housekeeping and regular safe removal of waste materials.
**The Manual Handling Operations Regulations:** may apply to the handling of containers / packages of this product. In order to calculate the weight of any pack size, multiply the volume in litres by the specific gravity value given in section 9. This will give the net weight of the product in kilograms. Allowance will then have to be made for the immediate packaging to give the approximate gross weight.
**STORAGE:** Observe label precautions - Store between 5°C and 25°C in a dry well-ventilated place away from sources of heat. Protect from frost. Keep out of reach of children. Store separately from oxidising agents and strongly alkaline and strongly acidic materials.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

**EXPOSURE CONTROLS:** Provide adequate ventilation during application and drying. Where practicable this should be achieved by the use of local exhaust ventilation. If this is not sufficient to maintain concentration of solvent vapours below the relevant Occupational Exposure Limit, suitable respiratory protection must be worn (see 'Occupational Exposure Controls' below).
**EXPOSURE LIMITS:**

| **Substance** | **Occupational Exposure Limits** | | | | **Notations** |
|---|---|---|---|---|---|
| | 8 hr LTEL (1) | | 15 min STEL(2) | | |
| | ppm | $mgm^{-3}$ | ppm | $mgm^{-3}$ | |
| | | | | «OEL68hour» | «OEL615min» |

«OEL6notes»

(1) Long-term exposure limit - 8 hour time weighted average.
(2) Short-term exposure limit - 15 mins time weighted average.
(S) Occupational Exposure Standard (OES)
(M) Maximum Exposure Limit (MEL)
(R) Recommended by suppliers
(A) Allocated limits by analogy with similar materials
(SK) Risk of absorption through unbroken skin
(Sen) Capable of causing sensitisation by inhalation

OEL's are taken from the current version of EH40, except those marked (R) or (A) which are assigned by the supplier of the substance.

**OCCUPATIONAL EXPOSURE CONTROLS:** All Personal Protective Equipment (ppe), including Respiratory Protective Equipment (rpe), used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH regulations.
**RESPIRATORY PROTECTION:** If exposure to hazardous substances identified in section 8 cannot be controlled by the provision of natural ventilation e.g. work in enclosed areas, exposure should be controlled, where reasonably practicable, by the use of mechanical exhaust ventilation; when this is not reasonably practicable, suitable respiratory protective equipment must be worn.
**HAND PROTECTION:** When skin exposure may occur, advice should be sought from glove suppliers on appropriate types and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Barrier creams may help to protect exposed areas of 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 liquid splashes should be worn.
**SKIN PROTECTION:** Cotton or cotton/synthetic overalls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a recognised skin cleaner. ALWAYS WASH YOUR HANDS BEFORE EATING, SMOKING OR USING THE TOILET.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Physical state: | paste |
| Flashpoint: | >100°C |
| Viscosity: | Not applicable |
| Specific gravity: | «specgrav» |
| Solubility in water: | miscible when wet. |
| pH: | 7.8 – 8.4 |

## 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 dioxide, carbon monoxide and oxides of nitrogen may be produced. Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of an exothermic reaction.

## 11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself. The product has been assessed following the conventional method in CHIP and is classified for toxicological hazards accordingly. This takes into account, where known, delayed and immediate effects and chronic effects of components from short term and long term exposure by oral, inhalation and dermal routes of exposure and eye contact. See sections 3 and 15 for details of the resulting hazard classification. Splashes in the eye may cause irritation and reversible local damage. Repeated or prolonged contact may lead to removal of natural fats from the skin resulting in non-allergic contact dermatitis.

## 12. ECOLOGICAL INFORMATION

There is no data available on the preparation itself. Do not allow to enter drains or watercourses or be deposited where it can affect ground or surface waters.
The Air Pollution Control requirements of regulations made under the Environmental Protection Act may apply to the use of this product.
The product has been assessed by the conventional method in CHIP and is not classified as dangerous for the environment.

## 13. DISPOSAL CONSIDERATION

Do not allow to enter drains or water courses. Wastes, including emptied containers, are controlled waste and should be disposed of in accordance with regulations made under the 'Control of Pollution Act' and the 'Environmental Protection Act'. Using information provided in this data sheet, advice should be obtained from the relevant Environment Agency whether the Special Waste Regulations apply.

## 14. TRANSPORT INFORMATION

**Transport within the users 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 an accident or spillage.
**Onwards transport subsequent to purchase:** Transport to be in accordance with ADR for road, IMDG for sea and ICAO/IATA for air.

| | |
|---|---|
| Proper shipping name: | **The product is not classified as dangerous for carriage**. |
| UN number | |
| Hazard class: | |
| Packing group: | |
| Sub-hazard class: | |

## 15. REGULATORY INFORMATION

«REGG1»CHIP Regulations. However, the following precautions should be observed:

**S Phrases**
«SPHRASE1STEXT»
«SPHRASE2STEXT»

«SPHRASE3STEXT»
S28 After contact with skin, wash immediately with plenty of soap and water or a recognized skin cleaner.
S51 Ensure good ventilation during application and while drying.

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 Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

## 16. OTHER INFORMATION

**Symbols and text of the R phrases in section 2:**

**REFERENCE DOCUMENTS**
**STATUTORY**
Air Navigation (Dangerous Substances) Regulations
Carriage of Dangerous Goods Regulations 2004
Chemical (Hazard Information and Packaging for Supply) (Amendment) Regulations 2002
Consumer Protection Act 1987
Control of Pollution (Amendment) Act 1989
Control of Substances Hazardous to Health Regulations 1999
Environment Act 1995
Environmental Protection (Duty of Care) Regulations 1992
Environmental Protection Act 1990
Factories Act 1961
Health and Safety at Work Act 1974
International Rail/Road Transport - RID and ADR (Current Editions)
Management of Health and Safety at Work Regulations 1999
Manual Handling Regulations 1992
Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997
Personal Protective Equipment at Work Regulations 1992
Protection of Eyes Regulations 1974
Provision and use of Personal Protective Equipment Regulations 1992
Special Waste Regulations 1996 as amended
Waste Management Regulations 1996

**APPROVED CODES OF PRACTICE**
ACOP - Control of Substances Hazardous to Health/Control of Carcinogenic Substances- HSE Books
ACOP - Waste Management - The Duty of Care

**HEALTH AND SAFETY EXECUTIVE GUIDANCE NOTES**
HS(G)37 An Introduction to Local Exhaust Ventilation
EH40 Occupational Exposure Limits
EH44 Dust: General Principles of Protection
HS(G)53 The Selection, Use and Maintenance of Respiratory Protective Equipment
HS(G)71 Storage of Packaged Dangerous Substances
HS(G)193COSHH Essentials: easy steps to control chemicals
L23 Manual Handling Guidance on Regulations

**BRITISH STANDARDS PUBLICATIONS**
EN420: General Requirements for Gloves
EN166: Personal Eye Protection: Specifications
BS2092: Eye Protection for Industrial and Non-Industrial Users
BS4275: Recommendations for the Selection, Use and Maintenance of Respiratory Protective Equipment

**HEALTH & SAFETY INFORMATION SHEET**
**APPENDIX 35**
*GRAPHITE MIX*

## SECTION 1 - IDENTIFICATION OF THE PREPARATION(S) AND THE COMPANY

**Product names / codes:** Graphite Mix

**Intended Use:** Professional use only, for incorporation into intumescent paints and coatings

**Company:** Intumescent Systems Ltd
Envirograf House,
Barfrestone,
Dover, Kent
CT15 7JG

Tel: +44 (0) 1304 842555
Fax: +44 (0) 1304 842666

## SECTION 2 - HAZARDS IDENTIFICATION

- If the graphite mix is allowed to dry out there is the potential for the release of the associated dust and fibre content; these are mechanical irritants to the skin and eyes and irritant to the upper respiratory system if inhaled.
- The fibres will include man made vitreous silicate (mineral wool) fibres, Superwool® fibres, glass-fibres and cellulose fibres; the dusts will include graphite, china clay, starch and Aluminium tri-hydroxide.
- As with any airborne dust or fibres pre-existing upper respiratory and lung diseases may be aggravated.
- High concentrations of airborne graphite or starch dust may represent an explosion risk.
- Airborne graphite dust may result in shorts and malfunction of electrical equipment
- Spilt graphite may result in underfoot slip hazards for personnel and potential grip problems for fork lift trucks and other vehicles.

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical Constitution:**

| | % by weight | CAS / EINECs Nos. |
|---|---|---|
| Exfoliating Graphite | 70 – 99 | 7782-42-5 / 231-955-3 |
| Man Made Vitreous (Silicate) Fibres - Note Q | 0 - 5.0 | 287922-11-6 |
| Superwool ® | 0 - 5.0 | 436083-99-7 / 266-046-0 |
| Chopped Strand Borosilicate Glass Fibre | 0 - 5.0 | 65997-17-3 |
| Woodpulp | 0 - 5.0 | 65996-61-4 / 265-995-8 |
| China Clay | 0 - 5.0 | 332-58-7 / 310-127-6 |
| Starch | 0 - 5.0 | 9005-25-8 / 232-679-6 |
| Aluminium tri-hydroxide | 0 - 5.0 | 21645-51-2 / 2444927 |
| Polymeric binder | 0 - 5.0 | N/A |
| Water | 0 - 30 | 7732-18-5 / 231-791-2 |

## SECTION 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, clear throat and blow nose to evacuate dust and fibre, drink water. Seek medical attention if symptoms persist.

## SECTION 5 - FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Use extinguishing agent suitable for type of surrounding combustible materials. Do not inhale the products of combustion.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

Do not allow dust or fibres 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 clothing or equipment
Dust and fibre deposits should be collected using a suitable vacuum cleaner with HEPA exhaust air filtration. The collected deposits and used vacuum 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 or fibres becoming airborne during sweeping.

## SECTION 7 - HANDLING AND STORAGE

**Handling:** Keep dust generation to a minimum.
**Storage:** Keep cool and do not let the graphite mix dry out
Keep containers sealed until required for use.

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

**Applicable Workplace Exposure Limits** from UK HSE EH40 / 2005 and supplement Oct 2007 **:**

Machine made mineral fibre: 2.0 fibres/ml & 5 mg/m3 (8 hr TWA)
Fine Carbon Dust: 3.5 mg/m3 (8 hr TWA) and 7.0 mg/m3 (15 minute reference period)
China Clay (kaolin) respirable dust: 2.0 mg/m3 (8 hr TWA)
Starch
Total Inhalable dust: 10.0 mg/m3 (8 hr TWA)
Respirable dust : 4.0 mg/m3 (8 hr TWA)
Aluminium Tri-hydroxide -
Inhalable dust: 10.0 mg/m3 (8 hr TWA)
Respirable dust : 4.0 mg/m3 (8 hr TWA)

**Respiratory Protection:** Should not be required if the graphite mix is kept damp during processing If the product is to be dry processed use local exhaust ventilation ( extraction ) where available. If workplace exposures exceed the workplace exposure limit for any of the components listed above then wear a disposable dust mask to EN149:2001 - FFP2 minimum

**Hand Protection:** The 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.
Wash overalls separate from other clothing.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Black flakes
**Density:** 450-550 kg/m3
**Expansion:** When dry rapid volumetric expansion will occur if the material is heated above 200 °C.
**Flammability:** Non-flammable**.** Ignites in oxygen @ 690°C

## SECTION 10 - STABILITY AND REACTIVITY

**Stability/Conditions to avoid:** Stable
**Materials to avoid:** None
**Hazardous decomposition products:** May include acidic and toxic gases and airborne fibres.
**Hazardous Polymerisation:** Will not occur

## SECTION 11 - TOXICOLOGICAL INFORMATION

**Graphite:**
Powdered graphite is non-toxic.
High levels of airborne graphite dust may be a mechanical eye irritant.
Skin contact with graphite dusts 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.

**Man Made Vitreous (Silicate) Fibres - Note Q (Rockwool 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:

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 MSDS 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.

**Superwool®:**

Irritant properties:

When tested using approved methods (Directive 67/548/EC, Annex 5, Method B4) this material gives negative results. All man made mineral fibres can produce mild skin itching or reddening, unlike other irritant reactions this is not the result of allergy or chemical skin damage but is caused by mechanical effects.

Human data on Respiratory Effects:

Epidemiological studies were conducted among miners exposed to Wollastonite a natural calcium silicate. No respiratory disease was observed.

Inhalation data for animals for Calcium Magnesium and Zirconia silicate wool:

This is a glass wool with high temperature resistance but low bio-persistence.
Several samples of vitreous fibres have been examined by long term inhalation testing of rats exposed to airborne fibre concentrations several orders of magnitude higher than are likely to occur in the workplace. No carcinogenic response was found for fibres in this range of low bio-persistence.
In a 90 day inhalation test at high concentration this fibre did not produce any significant cell proliferation. A nonspecific inflammatory response was noticed at the end of the exposure period but rapidly declined thereafter. The biological effect declined more rapidly than the concentration of fibres in the lung.

**Chopped strand glass fibre:**

There are no known chronic health effects connected with long term use or contact with continuous filament glass fibre. The glass fibres in this product are mechanical irritants which may result in temporary irritation of the throat, eyes or skin. The evidence from human and animal studies was evaluated by the International Agency for Research on Cancer (IARC) as insufficient to classify continuous filament glass fibre as a possible, probable or confirmed cancer causing material.
In 1987 (IARC) classified continuous filament glass fibre as “not classifiable with respect to human carcinogenicity (Group 3)”

**Woodpulp (cellulose):**

There are no known chronic health effects connected with long term use or contact with woodpulp.
Airborne fibres may be upper respiratory irritants, mechanical eye irritants or temporary skin irritants for sensitive individuals.

**China Clay (Kaolin) (hydrous kaolin clay):**

High levels of airborne kaolin dust may be a mechanical eye irritant.
Skin contact with kaolin dust may cause temporary irritation due to mechanical effects; repeated prolonged exposures may result in drying of the skin leading to dermatitis. Airborne kaolin dust is an upper respiratory irritant; exposures may aggravate pre-existing upper respiratory and lung diseases.
Prolonged and repeated inhalation of respirable dusts (including kaolin dust) in excess of the appropriate exposure limits has caused pneumoconiosis, a lung disease.
Not all individuals with pneumoconiosis will exhibit symptoms (signs) of the disease. However, pneumoconiosis can be progressive and symptoms can appear at any time, even years after the exposure has ceased. Kaolin is not listed as a carcinogen by the International Agency for Research on Cancer (IARC).

**Starch:**

Starch is widely used in foodstuffs and domestic products and is essentially non-toxic
Airborne starch dust may be an upper respiratory system irritant ; high concentrations may represent

**Aluminium Tri-hydroxide:**

ATH powder is insoluble is essentially non-toxic.
High levels of airborne ATH dust may be a mechanical eye irritant.
Skin contact with ATH dust may cause temporary irritation due to mechanical effects.
Airborne ATH dust is an upper respiratory irritant; exposures may aggravate pre-existing upper respiratory and lung diseases.
If ingested Aluminium can accumulate in the human body; repeated or extreme high level exposures to aluminium compounds may result in long term systemic effects.
Keeping the graphite mix moist during processing is unlikely to result in high level exposures to ATH dust or long term effects related to the aluminium content.

## SECTION 12 - ECOLOGICAL INFORMATION

The graphite mix will remain stable over time with the inorganic components remaining inert

## SECTION 13 - DISPOSAL CONSIDERATIONS

Waste should be disposed of at a licensed industrial waste site; local regulations should be considered.
Waste should be bagged or suitably contained to prevent dust and fibres being wind blown during disposal.
In the UK the waste is not classified as Hazardous.

## SECTION 14 - TRANSPORT INFORMATION

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

## SECTION 15 - REGULATORY INFORMATION

Fibre Type Definitions and Classification according to Directive 97 / 69 / CE:

**Man Made Vitreous (Silicate) Fibres - Note Q (Rockwool fibre):**

The mineral wool fibres contained in these products are defined as " man-made vitreous (silicate ) fibres with random orientation with alkaline oxide and alkaline earth oxides ( $Na_2O$ + $K_2O$ + MgO + BaO ) content greater than 18% by weight"

The particular mineral wool fibres contained in these products have increased bio-solubility and are thus exonerated from classification as a carcinogen in accordance with Note Q of Directive 97 / 69 / CE; they also fulfil the requirements of Appendix V, No.7.1 (1) of the Dangerous Substance Ordinance of Germany.

Irritant Xi - R38 Irritating to the Skin.
S36 / 37 Wear suitable protective clothing and gloves.

**Superwool®:**

The Superwool® fibres contained in this product are defined as “man-made vitreous (silicate) fibres with random orientation with alkaline oxide and alkaline earth oxides (Na2O+K2O+CaO+MgO+BaO) content greater than 18 % by weight”

Superwool® fibre is not classified as a carcinogen under directive 97/69/CE.

Under Directive 67/548/EEC all types of man-made vitreous (silicate) fibres including Superwool® are classified as "irritant" (due to their mechanical effects) despite the fact that testing by the appropriate EU method (B4 in annexe 5 of Directive 67/548/EEC) does not give a response.

**Chopped Strand glass fibre:**

The chopped strand continuous filament glass fibres contained in this product do not fall within the scope of Directive 97/69/CE as they are not “fibres with random orientation”

Chopped strand continuous filament glass fibres are not classified as carcinogenic according to Directive 97/69/CE.

## SECTION 16 - OTHER INFORMATION

**Notes:** New SDS 5 March 2009 for Graphite mix

Further information regarding working with man made mineral fibres and measurement techniques may be obtained by referring to Guidance Note EH46 1990 and MDHS59 1988 published by the UK, Health & Safety Executive .