

SAFETY DATA SHEET



ENVIROGRAF®

HS083-EP/FS/IN/SB-11-2018

Product Number: 83
EP/FS/IN/SB Spirit Based
Intumescent Coating for Steel Protection

Description:

Spirit based paint suitable for the protection of external steel and aluminium.
Can be applied over existing paint after removal of any loose particles and washing down.

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

- (Appendix 89) EP/FS/IN/SB Spirit based Steel Paint

*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 89
EP/FS/IN/SB

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

1.1 Product identifier

Product name : EP/FS/IN/SB Spirit-based intumescent coating for steel
Product code : Not available
Product description : Paint
Product type : Liquid
Other means of identification : Not available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Uses in Coatings – Industrial use
Uses in Coatings – Professional use

See Annex to the Safety data sheet for additional information in the Exposure Scenario(s)

1.3 Details of the supplier of the safety data sheet

Envirograf
Envirograf House, Barfrestone, Dover, Kent, CT15 7JG
Telephone/fax/email: 01304 842555 01304 842666 sales@envirograf.com

1.4 Emergency telephone number: Supplier: 01304 842555 (Not 24 Hours)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Product definition : Mixture
Classification According to Regulation (EC) No. 1272/2008 [CLP/GHS]:
Flam. Liq. 3, H226
Skin Irrit. 2, H315
Eye Irrit. 2, H319

2.2 Label Elements

Hazard pictograms :



Signal word : Warning
Hazard statements : Flammable liquid and vapour
Causes serious eye irritation
Causes skin irritation

Precautionary statements

General : Not applicable
Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames & other ignition sources . No Smoking
Response : IF ON SKIN (or hair): Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage : Store in a well-ventilated place. Keep cool
Disposal : Dispose of contents & container in accordance with all local, regional, national & international regulations.
P102, P101, P280, P210, P303+P361+P353, P403, P235, P501
Hazardous ingredients : xylene
Supplemental label elements : Not Applicable
2.3 Other hazards
Other hazards which do not result in classification : None known

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type	Notes
xylene	REACH # 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥ 10- ≥25	Flam. Liq 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2 H319	[1] [2]	c
ethylbenzene	REACH# 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	<10	Flam. Liq. 2, H225 Asp. Tox. 4, H332 STOT RE 2, H337 (hearing organs) Asp. Tox. 1, H304 See Section 16 for the full text of the H statements declared above.	[1] [2]	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8

4. FIRST AID MEASURES

4.1 Description of first aid

General: In all cases of doubt or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 10 minutes, keeping eyelids open and seek immediate medical advice.

Inhalation: Remove to fresh air, keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin Contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or a recognized skin cleaner. DO NOT USE SOLVENT OR THINNERS.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. DO NOT induce vomiting

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Section 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Potential acute health effects

Eye contact : Causes serious eye irritation
Inhalation : No known significant effects or critical hazards
Skin contact : Causes skin irritation.
Ingestion : No known significant effects or critical hazards

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following: Pain or irritation, watering, redness
Inhalation : No specific data
Skin contact : Adverse symptoms may include: irritation, redness
Ingestion : No specific data

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO₂, powders, water spray.

Unsuitable extinguishing media : Do not use water jet

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard

Hazardous combustion products : Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, carbonyl halides, metal oxide/oxides

5.3 Advice for firefighters

Special precautions for Firefighters : Promptly isolate the scene by removing all persons from the vicinity of the incident there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool

Special protective equipment for firefighters : Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN469 will provide a basic level of protection for chemical incidents

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency Personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding area. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel."

6.2 Environmental Precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air)

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other Sections : See Section 1 for emergency contact information
See Section 8 for information appropriate personal protective equipment
See Section 13 for additional waste treatment information

7. HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s)

7.1 Precautions for safe handling

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.

In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep away from heat, sparks and flame. No sparking tools should be used.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Put on appropriate personal protective equipment (see Section 8)

Never use pressure to empty. Container is not a pressure vessel.

Always keep in containers made from the same material as the original one.

Comply with the health and safety at work laws.

Do not allow to enter drains or watercourses.

Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Recommendations : Not available

Industrial sector specific Solutions : Not available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s)

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Xylene	EH40/2005 WELs (United Kingdom (UK). 12/2011 absorbed through skin. STEL: 441 mg/m ³ 15 minutes STEL: 100 ppm 15 minutes TWA: 220mg/m ³ 8 hours TWA: 50 ppm 8 hours
Ethylbenzene	EH40/2005 WELs (United Kingdom (UK). 12/2011 absorbed through skin. STEL: 552 mg/m ³ 15 minutes STEL: 125 ppm 15 minutes TWA: 441mg/m ³ 8 hours TWA: 100 ppm 8 hours

Recommended monitoring Procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived no effect levels (DNELs)

Product/ingredient name	Type	Exposure	Value	Population	Effects
Xylene	DNEL	Short term Inhalation	289 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	289 mg/m ³	Workers	Local
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	108 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	14,8 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	1,6 mg/kg bw/day	Consumers	Systemic
Ethylbenzene	DNEL	Short term Inhalation	293 mg/m ³	Workers	Local
	DNEL	Long term Dermal	180mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	15 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	1,6 mg/kg bw/day	Consumers	Systemic

Predicted no effect concentrations (PNECs)

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
Xylene	PNEC	Fresh water	0,327 mg/l	-
	PNEC	Marine	0,327 mg/l	-
	PNEC	Sewage treatment plant	6,58 mg/l	-
	PNEC	Fresh water sediment	12,46 mg/kg dwt	-
	PNEC	Marine water sediment	12,46 mg/kg dwt	-
	PNEC	Soil	2,31 mg/kg dwt	-
Ethylbenzene	PNEC	Fresh Water	0,1 mg/l	-
	PNEC	Marine	0,1 mg/l	-
	PNEC	Sewage treatment plant	9,6 mg/l	-
	PNEC	Fresh water sediment	13,7 mg/kg dwt	-
	PNEC	Soil	2,68 mg/kg dwt	-
	PNEC	Secondary Poisoning	20 mg/kg	-

8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying to EN 166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand Protection

: There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacture on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. Wear suitable gloves tested to EN374.

Not recommended, gloves (breakthrough time) <1 hour: Neoprene, butyl rubber, PVC

Recommended, gloves (breakthrough time) >8 hours: nitrile rubber, 4H, Teflon, polyvinyl alcohol (PVA)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387 (as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When using roller or brush, consider use of charcoal filter

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Liquid
Colour	: Various
Odour	: Characteristic
Odour threshold	: Not available
pH	: Not applicable
Melting/freezing point	: Not applicable
Initial boiling point and boiling range	: Lowest known value: 136.1°C (277°F) (ethylbenzene). Weighted average: 136.14°C (277.1°F)
Flash point	: Closed cup: 24°C
Evaporation rate	: Highest known value: 0.84 (ethylbenzene). Weighted Average: 0.79 compared with butyl acetate
Flammability (solid, gas)	: Not applicable
Burning time	: Not applicable
Burning rate	: Not applicable
Upper/lower flammability or explosive limits	: 0.8 – 6.7%
Vapour pressure	: Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.98 kPa (7.35 mm Hg) (at 20°C)
Vapour density	: Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.7
Relative density	: 1.29 to 1.296 g/cm ³
Solubility(ies)	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available
Auto-ignition temperature	: Lowest known value: 432°C (809.6°F) (xylene)
Decomposition temperature	: Not available
Viscosity	: Kinematic (40°C): >0.205 cm ² /s (>20.5 mm ² /s)
Explosive properties	: Not available
Oxidising properties	: Not available

9.2 Other information

No additional information.

10. STABILITY AND REACTIVITY

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reaction will not occur
10.4 Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
10.5 Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No. 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact

Product/ingredient name	Result	Species	Dose	Exposure
Xylene	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDL ₀ Dermal	Rabbit	4300 mg/kg	-
Ethylbenzene	LC50 Inhalation gas	Rabbit	4000 ppm	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Acute toxicity estimates

Route	ATE value
Dermal	5291,8 mg/kg
Inhalation (vapours)	39,69 mg/l

Specific target organ toxicity (single exposure)

Not available

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target Organs
Ethylbenzene	Category 2	Not determined	Hearing organs

Aspiration hazard

Product / ingredients name	Result
Ethylbenzene	ASPIRATION HAZARD – Category 1

Potential acute health effects

Eye contact : Causes serious eye irritation

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical chemical and toxicological characteristics

Eye contact : Adverse symptoms may include pain or irritation, watering, redness

Inhalation : No specific data

Ingestion : No specific data

Skin contact : Adverse symptoms may include irritation, redness

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Product/ingredient name	Result	Species	Exposure
Ethylbenzene	Acute EC50 7,2 mg/l	Algae	48 hours
	Acute EC50 2,93 mg/l	Daphnia	48 hours
	Acute lc50 4,2 mg/l	Fish	96 hours

Conclusion/Summary : No known significant effects or critical hazards

12.2 Persistence and degradability:**Conclusion/Summary** : Not available

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene	-	-	Readily
Ethylbenzene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Xylene	3,12	8.1 to 25.9	Low
Ethylbenzene	3,6		Low

12.4 Mobility in soil**Soil/water partition** : Not available**Coefficient (Koc)****Mobility** : Not available**12.5 Results of PBT and vPvB assessment****PBT** : Not applicable**vPvB** : Not applicable**12.6 Other adverse effects** : No known significant effects or critical hazards.**13. DISPOSAL CONSIDERATIONS**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s)





13.1 Waste treatment methods

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste

European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances

14. TRANSPORT INFORMATION

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	III	III	III	III
14.5 environmental hazards	No	No	No	No
Marine pollutant substances	Not applicable	Not applicable	Not applicable	Not applicable

14.6 Special precautions for user: Transport within 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 an accident or spillage.

Additional information

ADR/RID : Tunnel restriction code: (D/E)
Hazard identification number: 30
Special provisions: 640E

IMDG : **Emergency schedules (EmS)**
F-E, S-E

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV – List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable

Other EU regulations

European inventory : Not determined

Black List Chemicals : Not listed

Priority List Chemicals : Not determined

Industrial emissions (Integrated pollution prevention and control) – Air : Not listed
Industrial emissions (Integrated pollution prevention and control) – Water : Not listed

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical Safety Assessment : Not applicable

16. OTHER INFORMATION

Abbreviations and acronyms : ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H.

Statements

H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure (Hearing organs)

Full text of classifications

[CLP/GHS]

Acute Tox. 4, H312	ACUTE TOXICITY (dermal) – Category 4
Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) – Category 4
Asp. Tox. 1, H304	ASPIRATION HAZARD – Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION – Category 2
Flam. Liq. 2 H225	FLAMMABLE LIQUIDS – Category 2
Flam. Liq. 3, H226	FLAMMABLE LIQUIDS – Category 3
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION – Category
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (HEARING ORGANS) – Category 2

History

Date of Issue/date of revision 17th January 2017

Date of previous issue 18th December 2016

Prepared by – Intumescent Systems Ltd

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by us, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.



Product Number: 83
EP/FS/IN/SB Spirit Based
Intumescent Coating for Steel Protection

Description:

Spirit based paint suitable for the protection of external steel and aluminium.
The Intumescent coating is suitable for periods up to 90 minutes fire protection dependant on the thickness of steel.
The system can be applied to previously coated surfaces with the use of one coat EP/FS/P Primer.
Each coat of EP/FS/IN/SB dries in approximately 2 hours under normal conditions.

Product Data:

Composition:	Solvent based acrylic thin film intumescent coating
Colour:	White
Flash point:	ISO 3679 Method 1: 25°C
Density:	Calculated: 1.3 kg/l
VOC-EU	IED (2010/75/EU) (Calculated): 360 g/l

Solids by volume: 71 ± 3%
Volume solids measured according to ISO 3233 and ASFP-BCF Guidance Method

Application:

Product can be applied by brush or airless spray. Ready to use and should not be thinned.

Packaging and Storage:

Available in 1 litre, 2.5 litre, 5 litre and 20 litre cans.
The product must be stored in accordance with national regulations. Keep the containers in a dry, cool, well ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.
12 months shelf life.

Health and Safety:

Please observe precautionary notices displayed on the container. Use under well ventilated conditions.
Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

APPLICATION DATA SHEET



ENVIROGRAF®

AP083-EP/FS/IN/SB-11-2018

Product Number: 83

EP/FS/IN/SB Spirit Based

Intumescent Coating for Steel Protection

Description:

Spirit based paint suitable for the protection of external steel and aluminium.
Can be applied over existing paint after removal of any loose particles and washing down.

Application:

1. Ensure that steel is cleaned and free from loose rust. Over existing paints, ensure that the surface is clean, dry, and free from grease or loose material before applying the primer. Slightly abrade any top coat to provide a key for the primer.
2. Apply Envirograf® EP/FS/P primer at a rate of 8 - 10m² per litre, suitable for internal and external application. If a primer has already been applied and is sound, then there is no need to apply Envirograf® primer.
3. Apply Envirograf® intumescent coat EP/FS/IN/SB over the primed surface by brush, roller or spray to give the correct loading as specified. Depending on the thickness of the coats applied and the air temperature and humidity, each coat will take approximately two hours to dry. Sanding between coats can be done if required using a fine grade sandpaper. If any sanding is carried out then it is advisable to apply an extra coat of EP/FS/IN/SB
4. Do not apply the Envirograf® intumescent coat EP/FS/IN/SB externally if rain is imminent. The top coat must be applied for weather protection or the area should be temporarily covered over to prevent damage to coated areas by rain, snow, or water leakage. If a paint contract is not going to be completed in a day, it is advisable to concentrate on one area at a time, thus ensuring all the coats including a top coat can be applied in the same day. This does not apply to internal applications where rain, water, or moisture are not a problem.
5. Where the steel is external, application of an undercoat is advisable. Any groove or joints between brick, block and steel must be sealed with silicone after coating is applied to stop ingress of water.
6. For internal use apply the EP/FS/TCW top coat at a rate of 10 -12m² per litre. For external use apply the EP/FS/TCE top coat at a rate of 2 coats at 10 -12m² per litre. The top coats can be supplied in any RAL or BS colour.