



SAFETY DATA SHEET

FIRWOOD 86 2PK ALUMINIUM GF EPOXY FINISH - BASE

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name FIRWOOD 86 2PK ALUMINIUM GF EPOXY FINISH - BASE
Product number 86B
Container size 5 litre container

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

1.3. Details of the supplier of the safety data sheet

Supplier Firwood Paints Ltd.
 Oakenbottom Road
 Bolton
 BL2 6DP
 T: +44 (0)1204 525231
 F: +44(0)1204 362522

Contact person e-mail: sales@firwood.co.uk

1.4. Emergency telephone number

Emergency telephone +44 (0) 1204 525231 (08.00-17.00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT RE 2 - H373
Environmental hazards Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC)

Environmental The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.
Physicochemical Heating may generate flammable vapours. Vapours may form explosive mixtures with air.

2.2. Label elements

Pictogram



Signal word

Warning

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Hazard statements	H226 Flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H373 May cause damage to organs through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 Get medical advice/ attention if you feel unwell. P501 Dispose of contents/ container in accordance with national regulations.
Contains	Reaction Product: Bisphenol A-(epichlorohydrin):epoxy resin (number average molecular weight >700), XYLENE
Supplementary precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground/ bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P260 Do not breathe vapour/ spray. P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P302+P352 IF ON SKIN: Wash with plenty of water. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P391 Collect spillage. P403+P235 Store in a well-ventilated place. Keep cool.

2.3. Other hazards**SECTION 3: Composition/information on ingredients****3.2. Mixtures**

Reaction Product: Bisphenol A-(epichlorohydrin):epoxy resin (number average molecular weight >700)	10-30%
CAS number: —	
Classification	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	

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XYLENE		10-30%
CAS number: 1330-20-7		EC number: 215-535-7
Classification	Classification (67/548/EEC or 1999/45/EC)	
Flam. Liq. 3 - H226	R10 Xn;R20/21 Xi;R38	
Acute Tox. 4 - H302		
Acute Tox. 4 - H312		
Acute Tox. 4 - H332		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
STOT SE 3 - H335		
STOT RE 2 - H373		
Asp. Tox. 1 - H304		
1-METHOXY-2-PROPANOL		10-30%
CAS number: 107-98-2		EC number: 203-539-1
Classification	Classification (67/548/EEC or 1999/45/EC)	
Flam. Liq. 3 - H226	R10 R67	
Acute Tox. 4 - H312		
STOT SE 3 - H336		
TRIZINC BIS(ORTHOPHOSPHATE)*2H2O		5-10%
CAS number: 7779-90-0		EC number: 231-944-3
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification	Classification (67/548/EEC or 1999/45/EC)	
Aquatic Acute 1 - H400	N;R50/53.	
Aquatic Chronic 1 - H410		
NAPHTHA (PETROLEUM) HYDROTREATED HEAVY		1-5%
CAS number: 64742-48-9		EC number: 265-150-3
Classification	Classification (67/548/EEC or 1999/45/EC)	
Asp. Tox. 1 - H304	Xn;R65. R66.	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Inhalation

Move affected person to fresh air at once. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion

Never give anything by mouth to an unconscious person. Do not induce vomiting. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Give plenty of water to drink. Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

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Skin contact	Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with the following media: Foam. Dry chemicals, sand, dolomite etc.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is flammable. Heating may generate flammable vapours. Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Cool containers exposed to flames with water until well after the fire is out.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from oxidising materials, heat and flames. Store in tightly closed original container in a dry, cool and well-ventilated place. Keep only in the original container.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

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Occupational exposure limits

XYLENE

Long-term exposure limit (8-hour TWA): WEL 50 ppm(Sk) 220 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 100 ppm(Sk) 441 mg/m³(Sk)

1-METHOXY-2-PROPANOL

Long-term exposure limit (8-hour TWA): WEL 100 ppm(Sk) 375 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 150 ppm(Sk) 560 mg/m³(Sk)

WEL = Workplace Exposure Limit

Ingredient comments

WEL = Workplace Exposure Limits

XYLENE (CAS: 1330-20-7)

DNEL	Industry - Inhalation; Short term : 442 mg/m ³ Industry - Inhalation; Long term local effects: 221 mg/kg/day Industry - Dermal; Long term : 3182 mg/kg/day Consumer - Inhalation; Short term : 260 mg/m ³ Consumer - Inhalation; Long term : 65.3 mg/m ³ Consumer - Dermal; : 1872 mg/kg/day Consumer - Oral; Long term : 12.5 mg/kg/day
PNEC	- Fresh water; 0.327 mg/l - Marine water; 0.327 mg/l - Sediment (Freshwater); 12.46 mg/kg - Sediment (Marinewater); 12.46 mg/kg - Soil; 2.31 mg/kg - STP; 6.58 mg/l

1-METHOXY-2-PROPANOL (CAS: 107-98-2)

DNEL	Industry - Inhalation; Short term local effects: 553.5 mg/m ³ Industry - Dermal; Long term systemic effects: 50.6 mg/kg/day Industry - Inhalation; Long term systemic effects: 369 mg/m ³ Consumer - Dermal; Long term systemic effects: 18.1 mg/kg/day Consumer - Inhalation; Long term systemic effects: 43.9 mg/m ³ Consumer - Oral; Long term systemic effects: 3.3 mg/kg/day
PNEC	- Fresh water; 10 mg/l - Marine water; 1 mg/l - STP; 100 mg/l - Sediment (Freshwater); 41.6 mg/kg - Sediment (Marinewater); 4.17 mg/kg - Soil; 2.47 mg/kg - Intermittent release; 100 mg/l

TRIZINC BIS(ORTHOPHOSPHATE)*2H2O (CAS: 7779-90-0)

DNEL	Workers - Inhalation; Long term systemic effects: 5 mg/m ³ Workers - Dermal; Long term systemic effects: 83 mg/kg/day Consumer - Dermal; Long term systemic effects: 83 mg/kg/day Consumer - Inhalation; Long term systemic effects: 2.5 mg/m ³ Consumer - Oral; Long term : 0.83 mg/kg/day
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PNEC	<ul style="list-style-type: none"> - Fresh water; 0.0206 mg/l - Marine water; 0.0061 mg/l - Sediment (Freshwater); 117.8 mg/kg - Sediment (Marinewater); 56.5 mg/kg - Soil; 35.6 mg/kg - STP; 0.1 mg/l
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8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

The following protection should be worn: Chemical splash goggles.

Hand protection

Use protective gloves.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Provide eyewash station.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a full facepiece, supplied-air respirator.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Silver.
Odour	Aromatic.
Flash point	24°C CC (Closed cup).
Evaporation rate	13.0 (butyl acetate = 1)
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.0
Vapour pressure	0.93 kPa @ 20°C
Vapour density	3.7 mg/l
Relative density	1.307 @ 20°C

9.2. Other information

Volatile organic compound This product contains a maximum VOC content of 417 g/l.

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

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Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions**10.4. Conditions to avoid**

Conditions to avoid Avoid heat. Avoid contact with the following materials: Strong oxidising agents.

10.5. Incompatible materials**10.6. Hazardous decomposition products**

Hazardous decomposition products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity - oral**

ATE oral (mg/kg) 7,363.77

Acute toxicity - dermal

ATE dermal (mg/kg) 11,002.17

Acute toxicity - inhalation

ATE inhalation (gases ppm) 29,455.08

Inhalation Gas or vapour is harmful on prolonged exposure or in high concentrations.

Ingestion Liquid irritates mucous membranes and may cause abdominal pain if swallowed.

Skin contact Prolonged or repeated exposure may cause severe irritation. May cause sensitisation by skin contact.

Eye contact May cause severe eye irritation.

Target organs Skin Eyes Respiratory system, lungs

Toxicological information on ingredients.**XYLENE****Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 1,700.0

Species Rabbit

ATE dermal (mg/kg) 1,700.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ gases ppmV) 5,000.0

Species Rat

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ATE inhalation (gases ppm) 5,000.0

1-METHOXY-2-PROPANOL**Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 4,016.0

Species Rat

ATE oral (mg/kg) 4,016.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

ATE dermal (mg/kg) 2,000.0

NAPHTHA (PETROLEUM) HYDROTREATED HEAVY**Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 6.0

Species Rat

SECTION 12: Ecological Information

Ecotoxicity The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

12.1. Toxicity**Ecological information on ingredients.****XYLENE**

Acute toxicity - fish LC₅₀, 96 hours: 4.2 mg/l, Onchorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >2.93 mg/l, Daphnia magna

Chronic toxicity - fish early life stage NOEC, hours: mg/l, Algae

Chronic toxicity - aquatic invertebrates NOEC, 96 hours: 3.3 mg/l, Daphnia magna

1-METHOXY-2-PROPANOL

Acute toxicity - fish LC₅₀, 96 hours: 6812 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >21100 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 7 days: >1000 mg/l, Scenedesmus subspicatus

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**Acute toxicity -
microorganisms**

EC₅₀, 3 hours: >1000 mg/l, Activated sludge

12.2. Persistence and degradability

Ecological information on ingredients.

XYLENE

**Persistence and
degradability**

The product is biodegradable.

1-METHOXY-2-PROPANOL

Biodegradation

- Degradation 96: 28 days

12.3. Bioaccumulative potential

Ecological information on ingredients.

XYLENE

Bioaccumulative potential

The product contains potentially bioaccumulating substances.

Partition coefficient

:

1-METHOXY-2-PROPANOL

Partition coefficient

log K_{ow}: -0.43

12.4. Mobility in soil

Ecological information on ingredients.

XYLENE

Mobility

The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

1-METHOXY-2-PROPANOL

**Adsorption/desorption
coefficient**

Water - : ~ 0.6 @ °C

Henry's law constant

~ 0.0000014 atm m³/mol @ °C

12.5. Results of PBT and vPvB assessment

Ecological information on ingredients.

XYLENE

**Results of PBT and vPvB
assessment**

This product does not contain any substances classified as PBT or vPvB.

1-METHOXY-2-PROPANOL

**Results of PBT and vPvB
assessment**

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

General information Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1263

UN No. (IMDG) 1263

UN No. (ICAO) 1263

UN No. (ADN) 1263

14.2. UN proper shipping name

Proper shipping name (ADR/RID) PAINT (TRIZINC BIS(ORTHOPHOSPHATE)*2-4H2O, EPOXY RESIN (Number average MW <= 700))

Proper shipping name (IMDG) PAINT (TRIZINC BIS(ORTHOPHOSPHATE)*2-4H2O, EPOXY RESIN (Number average MW <= 700))

Proper shipping name (ICAO) PAINT (TRIZINC BIS(ORTHOPHOSPHATE)*2-4H2O, EPOXY RESIN (Number average MW <= 700))

Proper shipping name (ADN) PAINT (TRIZINC BIS(ORTHOPHOSPHATE)*2-4H2O, EPOXY RESIN (Number average MW <= 700))

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

ADN class 3

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

14.5. Environmental hazards

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Environmentally hazardous substance/marine pollutant

**14.6. Special precautions for user**

EmS	F-E, S-E
ADR transport category	3
Emergency Action Code	•3Y
Hazard Identification Number (ADR/RID)	30
Tunnel restriction code	(D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). Control of Substances Hazardous to Health Regulations 2002 (as amended)
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Guidance	Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment**SECTION 16: Other information**

Issued by	HS&E Manager.
Revision date	13/11/2014
SDS number	20436
SDS status	Approved.
Risk phrases in full	R10 Flammable. R20/21 Harmful by inhalation and in contact with skin. R36/38 Irritating to eyes and skin. R38 Irritating to skin. R43 May cause sensitisation by skin contact. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.

FIRWOOD 86 2PK ALUMINIUM GF EPOXY FINISH - BASE

Hazard statements in full

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs (Respiratory system, lungs) through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.