

SAFETY DATA SHEET

A.W.F. E.M. LIQUID METAL BASE

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	A.W.F. E.M. Liquid Metal Base
Supplier	A.W.F. SMS Ltd
Address	Unit I D Brymau 3 Estate River Lane Saltney Chester, CH4 8RQ
Phone Number	01244 - 677833
Fax Number	01244 - 677844

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation

BISPHENOL A - EPOXY RESIN (Mn <=700)

CAS number	% by weight	EC number	Classification Component
025068-38-6	15 - 20%	500-033-5	Xi; R36/38, R43, N; R51/53

BISPHENOL F - EPOXY RESIN

CAS number	% by weight	EC number	Classification Component
028064-14-4	10 - 15%		Xi; R36/38, R43, N; R51/53

See section 16 for the full text of the R-phrases declared above

Occupational exposure limits, if available, are listed in section 8.

3. HAZARDS IDENTIFICATION

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification Xi; R36/38, R43, N; R51/53

Human health hazards Irritating to eyes and skin. May cause sensitisation by skin contact.

Environmental hazards Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

See section 11 for more detailed information on health effects and symptoms.

4. FIRST AID MEASURES

Ingestion Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.

Skin contact Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation occurs.

Eye contact In case of contact, immediately flush eyes with plenty of water for at

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least 15 minutes. Check for and remove any contact lenses. Get medical attention immediately.

See section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

Extinguishing media In case of fire, use water spray (fog), foam, dry chemical or CO₂. Do not use water jet.

Special exposure hazards No specific hazard.

Hazardous thermal decomposition products

In a fire, the following may be released: carbon oxides (CO, CO₂)

Protection of fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (section 8).

Environmental precautions Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up If emergency personnel are unavailable, vacuum or carefully scoop up spilt material and place in an appropriate container for disposal.

7. HANDLING AND STORAGE

Handling Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage Store in original sealed containers at temperatures between 5° and 30°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection A respirator is not needed under normal and intended conditions of product use.

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. >8 hours (breakthrough time): nitrile rubber

Eye protection Safety glasses. Chemical splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin protection Protective clothing. Repeated skin exposure can produce local skin destruction or dermatitis.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Solid. (Colour paste)

pH Basic.

Flash point Closed cup: >240°C (464°F).

Explosion limits Not available.

Odour Faint odour.

Boiling point Not available.

Flammability Non-flammable.

Oxidising properties Not available

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Vapour pressure Not available.

Solubility Insoluble in cold water.

Evaporation rate Not available.

(butyl acetate = 1)

Auto-ignition temperature >300°C (572°F)

Relative density 2.65 g/cm³

Vapour density Not available.

Octanol/water Not available.

partition coefficient

Melting point Not available.

10. STABILITY AND REACTIVITY

Stability The product is stable.

Conditions to avoid None identified.

Materials to avoid

This product should be stored away from oxidising materials and strong bases. acids

Amines peroxides These could cause the product to polymerise exothermically.

Unintentional contact with them should be avoided

Hazardous decomposition products

In a fire, the following may be released: carbon oxides (CO, CO₂)

11. TOXICOLOGICAL INFORMATION

Potential acute health effects

Inhalation No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Skin contact Irritating to skin. May cause sensitisation by skin contact.

Eye contact Irritating to eyes.

Acute toxicity

Ingredient name	Test	Result	Route	Species
Bisphenol a - epoxy resin (Mn <=700)	LD50	>2000 mg/kg	Oral	Rat
Bisphenol f - epoxy resin	LD50	>2000 mg/kg	Oral	Rat

Potential chronic health effects

Carcinogenicity No carcinogenic effect.

Mutagenicity No mutagenic effect

Reproductive toxicity No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Skin Repeated skin exposure can produce local skin destruction or dermatitis.

Additional information

No components of this material are listed as carcinogens by OSHA, NTP, ACGIH or IARC.

12. ECOLOGICAL INFORMATION

Persistence/degradability

Ingredient name	Aquatic half-life	Photolysis	Biodegradability
AWF E.M. Liquid Metal Base	-	-	Not readily

This product is not expected to bioaccumulate through food chains in the environment.

Mobility Do not allow to enter drains or watercourses.

Other adverse effects

Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Methods of disposal The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements

Hazardous waste The classification of the product may meet the criteria for a hazardous waste.

14. TRANSPORT INFORMATION

International transport regulations

UN number 3077

Proper shipping name Environmentally hazardous substance, solid, n.o.s. (BISPHENOL A - EPOXY RESIN)

Class 9

Packing group III

Additional information Emergency schedules (EmS) F-A,S-F

15. REGULATORY INFORMATION

EU regulations

Hazard symbol/symbols Irritant, Dangerous for the environment.

Risk phrases R36/38- Irritating to eyes and skin. R43- May cause sensitisation by skin contact. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases S24- Avoid contact with skin. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of soap and water. S29- Do not empty into drains. S36/37- Wear suitable protective clothing and gloves. Contains epoxy constituents. See information supplied by the manufacturer.

Contains

BISPHENOL A - EPOXY RESIN (Mn <=700) 500-033-5

BISPHENOL F - EPOXY RESIN

Product use Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use.

- Consumer applications.

Other EU regulations

EU statistical classification 39073000

(Tariff Code)

National regulations

United States

SARA 313 toxic chemical notification and release reporting No products were found.

Germany Hazard class for water 2

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - Europe

R36/38- Irritating to eyes and skin. R43- May cause sensitisation by skin

contact. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Full text of classifications referred to in sections 2 and 3 - Europe

Xi - Irritant

N - Dangerous for the environment.

Further information

Conforms to EU Directive 91/155/EEC, as amended by 2001/58/EC

Canada - This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user.

All materials may present unknown hazards and should be used with caution.

Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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