

SAFETY DATA SHEET

A.W.F. EM CERAMIC METAL FG BASE

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	A.W.F. EM Ceramic Metal FG 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
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
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. Obtain medical attention if symptoms occur.

continued on page 2

continued from page 1

Eye contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. 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. 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

Keep container tightly closed. 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. 4-8 hours (breakthrough time): butyl rubber, nitrile rubber, natural rubber (latex) or PVC gloves.

Eye protection

Safety glasses. 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 or prolonged contact with irritants may cause dermatitis.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid. (Colour paste)	Odour	Faint odour.
pH	Acidic.	Boiling point	Not available.
Flash point	Closed cup: >240°C (464°F).	Flammability	Non-flammable.
Explosion limits	Not available.	Oxidising properties	Not available.
Vapour pressure	Not available.	Relative density	2.65 g/cm ³
Solubility	Insoluble in cold water.	Vapour density	Not available.
Evaporation rate	Not available.	Octanol/water	Not available.
(butyl acetate = 1)		partition coefficient	
Auto-ignition temperature	>300°C (572°F)	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 This product is not expected to bioaccumulate through food chains in the environment

Ingredient name	Aquatic half-life	Photolysis	Biodegradability
AWF EM Ceramic Metal FG Base	-	-	Not readily

Bioaccumulative potential

Mobility Do not allow to enter drains or watercourses.

continued on page 4

continued from page 3

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 waste¹⁴.

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.

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.

Date of issue 19/02/2007