



SAFETY DATA SHEET STYCCOBOND F81 RESIN

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

1.1. Product identifier

Product name STYCCOBOND F81 RESIN

Internal identification SBF81R/13

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

Identified uses Component of Epoxy Resin adhesive.

Uses advised against None

1.3. Details of the supplier of the safety data sheet

Supplier F.Ball and Co. Ltd.
Churnetside Business Park,
Station Road,
Cheddleton,
Leek,
Staffordshire. ST13 7RS
Tel: 01538 361633 Mon-Fri 8.30am-5.00pm (Exc Bank Holidays)
Fax: 01538 361622
E.mail: msds@f-ball.co.uk

1.4. Emergency telephone number

Emergency telephone 01538 361633 Mon-Fri 8.30am - 5.00pm (excluding Bank Holidays)

National emergency telephone number UK - National Poisons Information Service Call 111
Ireland - National Poisons Information Centre Call +353 1 809 2166

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

Human health The liquid is irritating to eyes and skin. Risk of sensitisation by skin contact

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

2.2. Label elements

Hazard pictograms



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Signal word	Warning
Hazard statements	H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P264 Wash contaminated skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P313 Get medical advice/ attention.
Contains	EPOXY RESIN (Number average MW <= 700), BISPENOL F EPOXY RESIN, OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS
Supplementary precautionary statements	P261 Avoid breathing vapour/ spray. P272 Contaminated work clothing should not be allowed out of the workplace. P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EPOXY RESIN (Number average MW <= 700) 30-60% CAS number: 25068-38-6 EC number: 500-033-5 REACH registration number: 01-2119456619-26
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411
BISPENOL F EPOXY RESIN 10-30% CAS number: 9003-36-5 REACH registration number: 01-2119454392-40
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411
OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS 1-10% CAS number: 68609-97-2 REACH registration number: 01-2119485289
Classification Skin Irrit. 2 - H315 Skin Sens. 1 - H317

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POLYETHER MODIFIED TRISILOXANE	<0.5%
CAS number: 134180-76-0	EC number: 603-798-4
Classification	
Acute Tox. 4 - H332	
Eye Irrit. 2 - H319	

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Remove affected person from source of contamination.
Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	This is unlikely to occur but symptoms similar to those of ingestion may develop.
Ingestion	May cause discomfort if swallowed.
Skin contact	Skin irritation. May cause an allergic skin reaction.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Toxic gases/vapours/fumes of: Oxides of the following substances: Carbon. Nitrogen.
Hazardous combustion products	Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting	No specific firefighting precautions known.
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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 Provide adequate ventilation. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillages with sand, earth or any suitable absorbent material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with sand or other inert absorbent. Collect spillage in containers, seal securely and deliver for disposal as hazardous waste.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Provide adequate ventilation. Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using the product.

Advice on general occupational hygiene Promptly remove any clothing that becomes contaminated. Wash contaminated clothing before reuse. Wash after use and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep separate from food, feedstuffs, fertilisers and other sensitive material. Store in closed original container at temperatures between 5°C and 30°C. Store in a cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

EPOXY RESIN (Number average MW <= 700) (CAS: 25068-38-6)

DNEL	Workers - Dermal; : 8.3 mg/kg Workers - Inhalation; : 12.3 mg/m ³
PNEC	- Fresh water; 0.003 mg/l - marine water; 0.0003 mg/l

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls	Provide adequate general and local exhaust ventilation.
Personal protection	Always check applicability with your supplier of protective equipment.
Eye/face protection	If there is a risk of splashing, wear chemical resistant goggles or visor approved to BS EN166.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Nitrile gloves to BSEN374 are recommended. Break through times can vary depending on thickness, use and source. Change gloves regularly.
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.
Hygiene measures	Provide eyewash station. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Wash contaminated clothing before reuse.
Respiratory protection	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge, type A (boiling point >65 °C)
Thermal hazards	None
Environmental exposure controls	Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Yellow.
Odour	Slight. Aromatic.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	Not determined.
Flash point	Not determined.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.

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Relative density	1.31 approx @ 20°C
Bulk density	Not determined.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	2160 approx P @ 20°C
Explosive properties	Not applicable.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not determined.
Comments	Information given is applicable to the product in its ready-to-use form.

9.2. Other information

Other information	None.
Refractive index	Not determined.
Particle size	Not applicable.
Molecular weight	Not determined.
Volatility	Not determined.
Saturation concentration	Not determined.
Critical temperature	Not determined.
Volatile organic compound	This product contains a maximum VOC content of 1 (when mixed with hardener) g/l.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Acids. Strong alkalis. Strong oxidising agents.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Considerable exothermic reaction can occur when mixed with epoxide hardeners.
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10.4. Conditions to avoid

Conditions to avoid	Avoid contact with acids and oxidising substances.
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10.5. Incompatible materials

Materials to avoid	Strong acids. Strong alkalis. Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Oxides of carbon. Oxides of nitrogen.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	No information available.
Acute toxicity - oral	
Notes (oral LD₅₀)	No specific test data are available.
Acute toxicity - dermal	
Notes (dermal LD₅₀)	No specific test data are available.
Acute toxicity - inhalation	
Notes (inhalation LC₅₀)	No specific test data are available.
Skin corrosion/irritation	
Skin corrosion/irritation	Irritating to skin. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
Animal data	No specific test data are available.
Human skin model test	No specific test data are available.
Extreme pH	No specific test data are available.
Serious eye damage/irritation	
Serious eye damage/irritation	Irritation of eyes is assumed.
Respiratory sensitisation	
Respiratory sensitisation	No specific test data are available.
Skin sensitisation	
Skin sensitisation	Sensitising.
Germ cell mutagenicity	
Genotoxicity - in vitro	No specific test data are available.
Genotoxicity - in vivo	No specific test data are available.
Carcinogenicity	
Carcinogenicity	No specific test data are available.
Target organ for carcinogenicity	No specific target organs known.
IARC carcinogenicity	Not listed.
Reproductive toxicity	
Reproductive toxicity - fertility	No specific test data are available.
Specific target organ toxicity - single exposure	
STOT - single exposure	No specific test data are available.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	No specific test data are available.
Aspiration hazard	
Aspiration hazard	Not relevant.
General information	No specific health hazards known.

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Inhalation	May cause some discomfort in poorly ventilated areas.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged or repeated exposure may cause severe irritation. May cause sensitisation by skin contact.
Eye contact	Irritating to eyes.
Acute and chronic health hazards	Irritating to skin. Irritating to eyes. May cause sensitisation by skin contact.
Route of exposure	Skin and/or eye contact
Target organs	Eyes Skin
Medical symptoms	Skin irritation. Irritation of eyes and mucous membranes.
Medical considerations	Pre-existing eye problems. Skin disorders and allergies.

Toxicological information on ingredients.

EPOXY RESIN (Number average MW <= 700)

Acute toxicity - oral

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

Species Rat

Notes (oral LD₅₀) LD₅₀ 20000 mg/kg, Oral, Mouse LD₅₀ 19800 mg/kg, Oral, Rabbit LD₅₀ 11400 mg/kg, Oral, Rat

Acute toxicity - dermal

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

Species Rat

Notes (dermal LD₅₀) LD₅₀ 1270 mg/kg, Dermal, Mouse LD₅₀ > 2000 mg/kg, Dermal, Rabbit LD₅₀ > 1200 mg/kg, Dermal, Rat

BISPHENOL F EPOXY RESIN

Acute toxicity - oral

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

Species Rat

Acute toxicity - dermal

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

Species Rabbit

OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 17,100.0

STYCCOBOND F81 RESIN

Species Rat

POLYETHER MODIFIED TRISILOXANE

Acute toxicity - inhalation

ATE inhalation (vapours 11.0 mg/l)

SECTION 12: Ecological information

Ecotoxicity The product should not be allowed to enter drains, sewers or watercourses. Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity Not available

Acute aquatic toxicity

Acute toxicity - fish Not determined

Acute toxicity - aquatic invertebrates Not determined.

Acute toxicity - aquatic plants Not determined.

Acute toxicity - microorganisms Not determined.

Acute toxicity - terrestrial Not determined.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage Not determined.

Short term toxicity - embryo and sac fry stages Not determined.

Chronic toxicity - aquatic invertebrates Not determined.

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700)

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 1.3 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 2.1 mg/l, Daphnia magna

Acute toxicity - aquatic plants , 72 hours: > 11 mg/l, Freshwater algae

Acute toxicity - microorganisms EC₅₀, 3 hours: > 100 mg/l, Activated sludge

BISPHENOL F EPOXY RESIN

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 2.54 mg/l, Freshwater fish

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Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 2.55 mg/l, Daphnia magna

OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: > 1800 , Leuciscus idus (Golden orfe)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 844 mg/l, Daphnia magna

Acute toxicity - microorganisms EC₅₀, >: > 100 mg/l, Activated sludge

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Phototransformation Not determined.

Stability (hydrolysis) Not determined.

Biodegradation Highly insoluble in water.

Biological oxygen demand Not determined.

Chemical oxygen demand Not determined.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

12.4. Mobility in soil

Mobility The product is insoluble in water.

Adsorption/desorption coefficient Not determined.

Henry's law constant Not determined.

Surface tension Not determined.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Small quantities of product may be treated with an equivalent quantity of product hardener, allowed to cure and disposed of as low hazard waste. Large quantities should be disposed of via licensed waste operators to an approved incineration unit. Product containers must not be re-used without commercial cleaning.

SECTION 14: Transport information

14.1. UN number

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UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

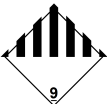
14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700), BISPHENOL F EPOXY RESIN)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700), BISPHENOL F EPOXY RESIN)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700), BISPHENOL F EPOXY RESIN)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700), BISPHENOL F EPOXY RESIN)

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z

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Hazard Identification Number 90
(ADR/RID)

Tunnel restriction code (-)

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	Control of Substances Hazardous to Health Regulations 2002 (as amended).
Guidance	Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations.
Authorisations (Annex XIV Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Annex XVII Regulation 1907/2006)	No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	F.Ball and Company Ltd Technical Datasheet.
Key literature references and sources for data	Type of Regulated Adhesive under the air Pollution Control (Volatile Organic Compounds) Regulation of Hong Kong (VCT and Asphalt Tile Adhesive). VOC Content (after mixing with hardener) not exceeding 1g/litre.
Revision comments	Section 2: update.
Revision date	02/03/2020
Revision	13
Supersedes date	11/11/2019
SDS status	Approved.
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. 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.