



SAFETY DATA SHEET

Stopgap SRS Resin

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

1.1. Product identifier

Product name Stopgap SRS Resin
UFI UFI: X410-F0MF-C00M-033D

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

Identified uses Component of epoxy resin based system
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)
 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 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms



Signal word Warning

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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	bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, Reaction products of hexane-1,6-diol with 2- (chloromethyl)oxirane (1:2)
Supplementary precautionary statements	P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE 30-60% CAS number: 1675-54-3 EC number: 216-823-5
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317
Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2) 30-60% CAS number: 933999-84-9
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412
2-METHOXY-1-METHYLETHYL ACETATE <0.5% CAS number: 108-65-6 EC number: 203-603-9
Classification Flam. Liq. 3 - H226

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.

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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.
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.
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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.
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6.3. Methods and material for containment and cleaning up

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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

Occupational exposure limits

2-METHOXY-1-METHYLETHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 274 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 548 mg/m³

Sk

Occupational Exposure Limit Value (8-hour reference period) 50ppm / 275mg/m³

Occupational Exposure Limit Value (15-minute reference period) 100ppm / 550mg/m³

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through the skin.

bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE (CAS: 1675-54-3)

DNEL Workers - Dermal; : 8.33 mg/kg
Workers - Inhalation; : 12.25 mg/m³

PNEC Fresh water; 0.006 mg/l
marine water; 0.0006 mg/l

Reaction products of hexane-1,6-diol with 2- (chloromethyl)oxirane (1:2) (CAS: 933999-84-9)

DNEL Workers - Dermal; : 1.7 mg/kg
Workers - Inhalation; : 2.9 mg/m³

PNEC Fresh water; 0.0115 mg/l

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC (CAS: 64742-95-6)

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DNEL	Workers - Dermal; Long term systemic effects: 25 mg/kg
	Workers - Inhalation; Long term systemic effects: 150 mg/m ³
	Consumer - Dermal; Long term systemic effects: 11 mg/kg
	Consumer - Inhalation; Long term systemic effects: 32 mg/m ³
	Consumer - Oral; Long term systemic effects: 11 mg/kg

2-METHOXY-1-METHYLETHYL ACETATE (CAS: 108-65-6)

DNEL	Workers - Dermal; Long term systemic effects: 153.5 mg/kg
	Workers - Inhalation; Long term systemic effects: 275 mg/m ³
	Consumer - Dermal; Long term systemic effects: 54.8 mg/kg
	Consumer - Inhalation; Long term systemic effects: 33 mg/m ³
	Consumer - Oral; Long term systemic effects: 1.67 mg/kg

PNEC	- Fresh water; 0.635 mg/l
	- marine water; 0.0635 mg/l
	- Intermittent release; 6.35 mg/l
	- STP; 100 mg/l
	- Sediment (Freshwater); 3.29 mg/kg
	- Sediment (Marinewater); 0.329 mg/kg
	- Soil; 0.29 mg/kg

8.2. Exposure controls

Protective equipment



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

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

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

Liquid.

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Colour	Yellow.
Odour	Aromatic.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not applicable.
Initial boiling point and range	>200°C @
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.
Relative density	1.11 @ 23°C
Bulk density	Not determined.
Solubility(ies)	Immiscible with water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	140 mPa s @ 25°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.
<u>9.2. Other information</u>	
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	Not determined.

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SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

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.

10.4. Conditions to avoid

Conditions to avoid Avoid contact with acids and oxidising substances.

10.5. Incompatible materials

Materials to avoid Strong acids. Strong alkalis. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Oxides of nitrogen.

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.

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Genotoxicity - in vivo	No specific test data are available.
<u>Carcinogenicity</u>	
Carcinogenicity	No specific test data are available.
Target organ for carcinogenicity	No specific target organs known.
IARC carcinogenicity	Not listed.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	No specific test data are available.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	No specific test data are available.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	No specific test data are available.
<u>Aspiration hazard</u>	
Aspiration hazard	Not relevant.
General information	No specific health hazards known.
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.

bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 15000 mg/kg, Oral, Rat LD₅₀ 13000 mg/kg, Dermal, Rabbit

Reaction products of hexane-1,6-diol with 2- (chloromethyl)oxirane (1:2)

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 8500 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >4900 mg/kg, Dermal, Rabbit

SECTION 12: Ecological information

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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.

bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1.8 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 11 mg/l, Algae

Reaction products of hexane-1,6-diol with 2- (chloromethyl)oxirane (1:2)

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 30 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 67 mg/l, Daphnia magna

Acute toxicity - aquatic plants LC₅₀, 48 hours: 23.1 mg/l, Algae

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.

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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

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.

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M6

ADR/RID label 9

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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
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(D/E)

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

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.
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Key literature references and sources for data	Health and Safety Executive Guidance Note EH40 (amended annually). Workplace Exposure Limits.
Revision comments	Section 3: update.
Revision date	02/07/2021
Revision	4
Supersedes date	23/09/2020
SDS number	20701
SDS status	Approved.
Hazard statements in full	H226 Flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects. H412 Harmful 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.