



SAFETY DATA SHEET ARBOKOL 1000

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

1.1. Product identifier

Product name ARBOKOL 1000

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

Identified uses Sealant.

1.3. Details of the supplier of the safety data sheet

Supplier Adshead Ratcliffe & Co. Ltd.
Derby Road, Belper
Derbyshire.
DE56 1WJ
Tel. (+44) 01773 826661
Fax. (+44) 01773 821215
sds@arbo.co.uk

1.4. Emergency telephone number

Emergency telephone (+44) 01773 826661 (office hours only)

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 3 - H412

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P280 Wear protective gloves.
P280 Wear eye protection.
P273 Avoid release to the environment.
P501 Dispose of contents/ container in accordance with national regulations.

Contains EPOXY RESIN (Number average MW 700 - 1200)

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2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

LIQUID POLYSULPHIDE POLYMER with thiol end groups (MW >1800)	30-60%
CAS number: 68611-50-7	

Classification

Aquatic Chronic 3 - H412

EPOXY RESIN (Number average MW 700 - 1200)	1-5%
CAS number: 25036-25-3	

Classification

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

BARIUM OXIDE obtained by calcining witherite	1-5%
CAS number: 1304-28-5 EC number: 215-127-9	

Classification

Acute Tox. 4 - H302
 Acute Tox. 4 - H332
 Skin Corr. 1B - H314
 Eye Dam. 1 - H318

CALCIUM PEROXIDE	1-5%
CAS number: 1305-79-9 EC number: 215-139-4	

Classification

Ox. Liq. 2 - H272
 Skin Irrit. 2 - H315
 Eye Irrit. 2 - H319
 STOT SE 3 - H335

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2-MERCAPTOETHANOL	<1%
CAS number: 60-24-2	EC number: 200-464-6
M factor (Chronic) = 1	
Classification Acute Tox. 4 - H302 Acute Tox. 3 - H311 Acute Tox. 3 - H331 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317 STOT SE 3 - H336 Aquatic Chronic 1 - H410	

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	In all cases of doubt, or if symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	If inhalation causes adverse effects, remove to fresh air. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Give milk instead of water if readily available. Get medical attention if any discomfort continues.
Skin contact	Wipe off excess material with cloth or paper. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues. In the event of any sensitisation symptoms developing, ensure further exposure is avoided.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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

Inhalation	No specific symptoms known.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation. Allergic rash.
Eye contact	May cause severe eye irritation.

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

Notes for the doctor	No specific recommendations.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
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 or vapours.
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Hazardous combustion products Carbon dioxide (CO₂). Carbon monoxide (CO). Hydrogen sulphide (H₂S). Sulphurous gases (SO_x).

5.3. Advice for firefighters

Protective actions during firefighting Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear self contained breathing apparatus.

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 Collect and place in suitable waste disposal containers and seal securely. Clean any slippery coating that remains using a detergent / soap solution or other biodegradable cleaner. Avoid the spillage or runoff entering drains, sewers or watercourses.

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. The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See section 12. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid contact with skin and eyes. Persons susceptible to allergic reactions should not handle this product.

Advice on general occupational hygiene Wash promptly with soap and water if skin becomes contaminated. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Miscellaneous hazardous material storage.

7.3. Specific end use(s)

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

Usage description Gunnable sealant.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

2-MERCAPTOETHANOL (CAS: 60-24-2)

DNEL

Workers - Inhalation; Long term systemic effects: 4 mg/m³

Workers - Dermal; Long term systemic effects: 0.6 mg/kg/day

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PNEC

- Fresh water; 0.00632 mg/l
- Marine water; 0.000632 mg/l
- Intermittent release; 0.004 mg/l
- STP; 60 mg/l
- Sediment (Freshwater); 0.0236 mg/kg
- Sediment (Marinewater); 0.00236 mg/kg
- Soil; 0.00101 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Wear eye protection. Manufactured / tested in accordance with EN 166.

Hand protection

Wear protective gloves made of the following material: Polyvinyl chloride (PVC). Nitrile rubber. The most suitable glove should be chosen in consultation with the glove supplier/manufacture, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated.

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	Uncured -paste. Cured - rubber.
Colour	Various colours.
Odour	Aromatic.
Odour threshold	Not applicable.
pH	Not applicable.
Melting point	Liquid polysulphide polymer: -60°C
Initial boiling point and range	Not applicable.
Flash point	Liquid polysulphide polymer: > 230°C
Evaporation rate	Not applicable.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: Not applicable. Lower flammable/explosive limit: Not applicable.
Vapour pressure	Liquid polysulphide polymer: 12.6 hPa @ 20°C
Vapour density	Not applicable.
Relative density	1.53 - 1.56 @ 20°C

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Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not determined.
Viscosity	8, 000 - 12, 000 P @ 20°C
Explosive properties	Not applicable.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not known. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time. Liquid polysulphide polymer decomposes at temperatures above 150 C

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Hydrogen sulphide (H₂S). Sulphurous gases (SO_x). Formaldehyde. Mercaptan.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects There are no data available on this product.

Acute toxicity - oral

ATE oral (mg/kg) 19,493.18

Acute toxicity - dermal

ATE dermal (mg/kg) 214,285.71

Acute toxicity - inhalation

ATE inhalation (gases ppm) 129,870.13

ATE inhalation (vapours mg/l) 357.34

ATE inhalation (dusts/mists mg/l) 50.25

Skin corrosion/irritation

Animal data For this endpoint no toxicological data is available for the whole product.

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Serious eye damage/irritation

Serious eye damage/irritation Contains a substance which is classified as causing serious damage to eyes.

Skin sensitisation

Skin sensitisation The product contains a small amount of a sensitising substance which may cause an allergic reaction in sensitive individuals.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Not applicable.

Inhalation No specific health hazards known.

Ingestion No harmful effects expected from quantities likely to be ingested by accident.

Skin contact May cause irritation. May cause sensitisation by skin contact.

Eye contact May cause severe eye irritation.

Medical considerations Skin disorders and allergies.

Toxicological information on ingredients.

LIQUID POLYSULPHIDE POLYMER with thiol end groups (MW >1800)

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >7800 mg/kg, Dermal, Rat

SECTION 12: Ecological Information

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

12.1. Toxicity

Toxicity There are no data for the product.

Ecological information on ingredients.

LIQUID POLYSULPHIDE POLYMER with thiol end groups (MW >1800)

Acute toxicity - fish LC₅₀, 96 hours: 1000 mg/l, Algae

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Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1160 mg/l, Daphnia magna

12.2. Persistence and degradability

Ecological information on ingredients.

LIQUID POLYSULPHIDE POLYMER with thiol end groups (MW >1800)

Biodegradation The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not applicable.

12.4. Mobility in soil

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. When handling waste, the safety precautions applying to handling of the product should be considered.

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

Waste class HP4 Irritant HP13 Sensitising HP14 Ecotoxic Recommended EWC Code 08 04 09*

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

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14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation Regulation (EC) 1907/2006 REACH (as amended).
Regulation (EC) 1272/2008 CLP (as amended).

Guidance Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	General review
Revision date	13/04/2017
Revision	1
Supersedes date	27/06/2014
SDS number	10157
Hazard statements in full	H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H331 Toxic if inhaled. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H410 Very 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.