



SAFETY DATA SHEET

Arbokol 1025 SP Curing Agent

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

1.1. Product identifier

Product name Arbokol 1025 SP Curing Agent

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

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)

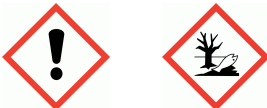
Physical hazards Not Classified
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317
Environmental hazards Aquatic Chronic 2 - H411

Human health The product is irritating to eyes and skin. May cause skin sensitisation or allergic reactions in sensitive individuals.

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

Pictogram



Signal word Warning

Hazard statements
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.

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Precautionary statements	<p>P280 Wear protective gloves.</p> <p>P280 Wear eye protection.</p> <p>P273 Avoid release to the environment.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P313 Get medical advice/ attention.</p> <p>P501 Dispose of contents/ container to ...</p>
Contains	EPOXY RESIN (Number average MW <= 700), BISPHENOL F - EPICHLOROHYDRIN RESIN (number average MW <= 700)

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EPOXY RESIN (Number average MW <= 700)	10-30%
CAS number: 25068-38-6 EC number: 500-033-5	
Classification	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	
BISPHENOL F - EPICHLOROHYDRIN RESIN (number average MW <= 700)	10-30%
CAS number: 28064-14-4	
Classification	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	
HYDROGENATED TERPHENYL	5-10%
CAS number: 61788-32-7 EC number: 262-967-7	
Classification	
Aquatic Chronic 4 - H413	
TERPHENYL	<1%
CAS number: 26140-60-3 EC number: 247-477-3	
M factor (Acute) = 10 M factor (Chronic) = 10	
Classification	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

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

SECTION 4: First aid measures

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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	Move affected person to fresh air at once. Rinse nose and mouth with water. 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.
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. Show this Safety Data Sheet to the medical personnel.

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

Inhalation	No specific symptoms known.
Ingestion	May cause discomfort if swallowed. May cause irritation to mouth, throat and stomach.
Skin contact	Skin irritation. Allergic rash.
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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.
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.
Hazardous combustion products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

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. Follow precautions for safe handling described in this safety data sheet.
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6.2. Environmental precautions

Environmental precautions	Avoid discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

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Methods for cleaning up When handling waste, the safety precautions applying to handling of the product should be considered. Wear necessary protective equipment. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. 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. Good personal hygiene procedures should be implemented.

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 / adhesive.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

HYDROGENATED TERPHENYL

Short-term exposure limit (15-minute): 0.5 ppm 4.8 mg/m³

TERPHENYL

Short-term exposure limit (15-minute): WEL 0.5 ppm 4.8 mg/m³

WEL = Workplace Exposure Limit

HYDROGENATED TERPHENYL (CAS: 61788-32-7)

DNEL

Workers - Inhalation; Long term systemic effects: 8.38 mg/m³
 Workers - Inhalation; Long term local effects: 83.8 mg/m³
 Workers - Dermal; Long term systemic effects: 46.3 mg/kg/day
 Workers - Dermal; Long term local effects: 0.2 mg/cm²
 General population - Inhalation; Long term systemic effects: 2.5 mg/m³
 General population - Inhalation; Long term local effects: 25 mg/m³
 General population - Dermal; Long term systemic effects: 27.8 mg/kg/day
 General population - Dermal; Long term local effects: 0.123 mg/cm²
 General population - Oral; Long term systemic effects: 0.3 mg/kg/day

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PNEC

- Fresh water; 0.0001 mg/l
- Marine water; 0.00001 mg/l
- Intermittent release; 0.001 mg/l
- STP; 10.3 mg/l
- Sediment (Freshwater); 3.16 mg/kg
- Sediment (Marinewater); 0.316 mg/kg
- Soil; 0.631 mg/kg
- Oral (food); 0.22 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

Hand protection

Use protective gloves. 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 any possibility of 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	Paste.
Colour	Grey. White.
Odour	Slight.
Odour threshold	Not applicable.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.

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Relative density	1.34 @ 20°C
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not determined.
Viscosity	12,000 - 18,000 P @ 20°C
Explosive properties	Not applicable.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Other information None.

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.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not determined. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

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. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects There are no data available on this product.

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation For this endpoint no toxicological data is available for the whole product.

Skin sensitisation

Skin sensitisation No specific test data are available.

Germ cell mutagenicity

Genotoxicity - in vitro For this endpoint no toxicological data is available for the whole product.

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity - fertility For this endpoint no toxicological data is available for the whole product.

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 relevant, due to the form of the product.

Inhalation No specific health hazards known.

Ingestion May cause discomfort if swallowed.

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

Eye contact Irritating to eyes.

Acute and chronic health hazards Mild dermatitis, allergic skin rash. Defatting, drying and cracking of skin.

Toxicological information on ingredients.

EPOXY RESIN (Number average MW <= 700)

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >2000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rat

Skin corrosion/irritation

Animal data OECD 404 Acute dermal irritation / corrosion: Mildly irritating (rabbit)

Serious eye damage/irritation

Serious eye damage/irritation OECD 405 Acute eye irritation / corrosion: Mildly irritating (rabbit)

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - : Sensitising.

SECTION 12: Ecological Information

Ecotoxicity The product contains substances which are toxic 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.

EPOXY RESIN (Number average MW <= 700)

Acute toxicity - fish LC₅₀, 96 hours: 1.5 mg/l, Algae

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Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 1.7 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 9.4 mg/l, Fish
Acute toxicity - microorganisms	IC ₈₀ , 3 hours: >100 mg/l, Bacteria

HYDROGENATED TERPHENYL

Acute toxicity - fish	LC ₅₀ , 96 hours: >1000 mg/l, Algae
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: > 1.34 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 48 hours: > 320 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	NOEC, 3 hours: 103 mg/l, Activated sludge

TERPHENYL

Acute aquatic toxicity

LE(C)₅₀	0.01 < L(E)C ₅₀ ≤ 0.1
M factor (Acute)	10
Acute toxicity - fish	LC ₅₀ , 96 hours: 27 mg/l, Algae
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 0.27 mg/l, Daphnia magna
<u>Chronic aquatic toxicity</u>	
M factor (Chronic)	10

12.2. Persistence and degradability

Persistence and degradability This product is not expected to be readily biodegradable.

Ecological information on ingredients.

EPOXY RESIN (Number average MW ≤ 700)

Persistence and degradability	The product is not readily biodegradable.
Biodegradation	- Degradation 5%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.
Partition coefficient	Not applicable.

Ecological information on ingredients.

EPOXY RESIN (Number average MW ≤ 700)

Bioaccumulative potential	BCF: 31,
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Partition coefficient log Pow: 3.242

HYDROGENATED TERPHENYL

Bioaccumulative potential BCF: 700 - 5200,

Partition coefficient log Pow: 6.5

TERPHENYL

Partition coefficient : log Pow 6.03

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods May be mixed with base component to give an inert polymeric material.

Waste class H4 - Irritant H13 - Sensitising H14 - Ecotoxic Recommended EWC Code 08 04 09*

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3077

UN No. (IMDG) 3077

UN No. (ICAO) 3077

UN No. (ADN) 3077

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

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

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

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

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M7

ADR/RID label 9

IMDG class 9

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ICAO class/division 9

ADN class 9

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO 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 2Z

Hazard Identification Number (ADR/RID) 90

Tunnel restriction code (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

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 10/05/2017

Revision 1

Supersedes date 01/06/2015

SDS number 10287

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Hazard statements in full

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

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.