



SAFETY DATA SHEET

ARBOKOL AG2 BASE - HOME MARKET GRADE

According to the REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577, as amended.

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

1.1. Product identifier

Product name ARBOKOL AG2 BASE - HOME MARKET GRADE

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

Identified uses Base component of: A two-part sealant

Uses advised against Restricted to professional users. This product is not intended to be used by the general public.

1.3. Details of the supplier of the safety data sheet

Supplier Adshead Ratcliffe & Co. Ltd.
Derby Road, Belper
Derbyshire.
DE56 1WJ
T: (+44) 01773 826661
F: (+44) 01773 821215
E: sds.carlisle@ccm-europe.com

1.4. Emergency telephone number

Emergency telephone NPIS (National Poisons Information Service): 0344 892 0111 (for medical professionals only).
For medical advice, members of the public should contact NHS 111 in England: 111; NHS 24 in Scotland: 111; NHS Direct in Wales: 111 or 0845 4647. In Northern Ireland: contact your local GP or pharmacist.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards Not Classified

Health hazards Skin Sens. 1A - H317

Environmental hazards Aquatic Chronic 3 - H412

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

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Precautionary statements	<p>P261 Avoid breathing vapours.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p>
Supplemental label information	EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
Contains	Naphtha (petroleum), steam-cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages. CAS number: 68611-50-7	10 - 30%
Classification Aquatic Chronic 3 - H412	
1,2-Benzenedicarboxylic acid, benzyl isononyl alkyl esters CAS number: 68515-40-2 EC number: 271-082-5	10 - <20%
Classification Not Classified	
Titanium dioxide CAS number: 13463-67-7 EC number: 236-675-5	3 - 7%
Classification Not Classified	
Naphtha (petroleum), steam-cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised CAS number: 71302-83-5	<2%
Classification Skin Sens. 1A - H317 Aquatic Chronic 3 - H412	
Silicon dioxide, chemically prepared CAS number: 112945-52-5 EC number: 231-545-4	< 0.3%
Classification Not Classified	

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

Composition comments Polysulphide polymer, with fillers, plasticiser and auxiliaries. This product contains > 1% of titanium dioxide but less than 1% of all particles have a diameter $\leq 10 \mu\text{m}$ therefore the classification Carc. 2; H351 does not apply.

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.

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. If skin irritation or rash occurs: Get medical advice/attention.

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 any discomfort continues.

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

Inhalation No specific symptoms known.

Ingestion May cause discomfort if swallowed.

Skin contact May cause an allergic skin reaction.

Eye contact May cause temporary eye irritation.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m^3 . No unusual fire or explosion hazards noted.

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 Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes.

Special protective equipment for firefighters Wear self contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions Provide adequate ventilation. Avoid contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet. Wear protective clothing as described in Section 8 of this safety data sheet. Keep unnecessary and unprotected personnel away from the spillage.

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. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.

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 Avoid contact with skin and eyes. Avoid spilling. Good personal hygiene procedures should be implemented. Avoid release to the environment. Contaminated work clothing should not be allowed out of the workplace. For personal protection, see Section 8. Persons susceptible to allergic reactions should not handle 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.

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

Occupational exposure limits

1,2-Benzenedicarboxylic acid, benzyl isononyl alkyl esters

Similar phthalates (di-isooctyl phthalate, di-isononyl phthalate, di-isodecyl phthalate: Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

Titanium dioxide

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

Silicon dioxide, chemically prepared

Silica, amorphous - Inhalable dust: Long-term exposure limit (8-hour TWA) WEL: 6 mg/m³, Respirable dust: Long-term exposure limit (8-hour TWA) WEL: 2.4 mg/m³

WEL = Workplace Exposure Limit.

1,2-Benzenedicarboxylic acid, benzyl isononyl alkyl esters (CAS: 68515-40-2)

DNEL

Workers - Inhalation; Long term systemic effects: 1.32 mg/m³

Workers - Dermal; Long term systemic effects: 2.8 mg/kg/day

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Naphtha (petroleum), steam-cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised (CAS: 71302-83-5)

DNEL

Workers - Inhalation; Long term systemic effects: 1.41 mg/m³

Workers - Dermal; Long term systemic effects: 3.5 mg/kg/day

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Chemical splash goggles. Personal protective equipment that provides appropriate eye and face protection should be worn.

Hand protection

Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, wear gloves that are proven to be impervious to the chemical and resist degradation.

Hygiene measures

Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Respiratory protection

Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Cream.
Odour	Mercaptan
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	Not applicable.
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	1.60 - 1.65 @ 20°C

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Solubility(ies)	Not applicable. @ °C	
Partition coefficient	No information available.	
Auto-ignition temperature	No information available.	
Decomposition Temperature	Liquid polysulphide polymer decomposes at temperatures above 150 C.	
Viscosity	11,500 - 13,500 P @ 20°C	
Explosive properties	Not considered to be explosive.	
Oxidising properties	Oxidising properties Not applicable.	Not applicable. Explosive properties

9.2. Other information

Other information None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity See the other subsections of this section for further details.

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 applicable. 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 Fire creates: Toxic gases/vapours/fumes of: Carbon dioxide (CO₂). Carbon monoxide (CO). Sulphurous gases (SO_x). Hydrogen sulphide (H₂S).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Acute toxicity - oral

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

Acute toxicity - dermal

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

Acute toxicity - inhalation

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

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

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Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Skin Sens. 1A May cause an allergic skin reaction.

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Inhalation No specific health hazards known.

Ingestion May cause discomfort.

Skin contact May cause an allergic skin reaction.

Eye contact May cause temporary eye irritation. Will not injure eye tissue.

Toxicological information on ingredients.

Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages.

Acute toxicity - oral

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

Acute toxicity - dermal

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

1,2-Benzenedicarboxylic acid, benzyl isononyl alkyl esters

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 15,800.0

Species Rat

ATE oral (mg/kg) 15,800.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 7,940.0

Species Rabbit

ATE dermal (mg/kg) 7,940.0

Naphtha (petroleum), steam-cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised

Acute toxicity - oral

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Notes (oral LD₅₀)	LD ₅₀ >2000 mg/kg, Oral, Rat
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	LD ₅₀ >2000 mg/kg, Dermal, Rat
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ dust/mist mg/l)	5.14
Species	Rat
ATE inhalation (dusts/mists mg/l)	5.14
<u>Skin sensitisation</u>	
Skin sensitisation	Local Lymph Node Assay (LLNA) - Mouse: Sensitising.

Silicon dioxide, chemically prepared

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	5,000.0
Species	Rat
Notes (oral LD₅₀)	LD ₅₀ >5000 mg/kg, Oral, Rat
ATE oral (mg/kg)	5,000.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	5,000.0
Species	Rabbit
Notes (dermal LD₅₀)	LD ₅₀ >5000 mg/kg, Dermal, Rabbit
ATE dermal (mg/kg)	5,000.0

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

Acute aquatic toxicity

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

Chronic aquatic toxicity

Summary Aquatic Chronic 3 Harmful to aquatic life with long lasting effects.

Ecological information on ingredients.

Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages.

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 320 mg/l, Pimephales promelas (Fat-head Minnow)
	LC ₅₀ , 96 hours: >1000 mg/l, Cyprinodon variegatus (Sheepshead minnow)

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Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 32 mg/l, Daphnia magna
 LC₅₀, 96 hours: 59 mg/l, Mysidopsis bahia (saltwater mysid)

Acute toxicity - aquatic plants EC₅₀, 72 hours: 17 mg/l, Selenastrum capricornutum

1,2-Benzenedicarboxylic acid, benzyl isononyl alkyl esters

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 4.5 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 96 hours: >1000 ppm, Pseudokirchneriella subcapitata

Naphtha (petroleum), steam-cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised

Acute aquatic toxicity

Acute toxicity - fish LL₅₀, 96 hours: 25.8 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates EL50, 48 hours: 54 mg/l, Daphnia magna

Acute toxicity - aquatic plants EL50, 72 hours: >100 mg/l, Desmodesmus subspicatus

Silicon dioxide, chemically prepared

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >10000 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: >1000 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product. Polysulphide polymer is poorly biodegradable.

Ecological information on ingredients.

Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages.

Persistence and degradability Not readily biodegradable.

1,2-Benzenedicarboxylic acid, benzyl isononyl alkyl esters

Persistence and degradability Readily biodegradable

Naphtha (petroleum), steam-cracked, C8-10 aromatic hydrocarbon fraction, alkylated and oligomerised

Persistence and degradability Not readily biodegradable.

12.3. Bioaccumulative potential

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Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages.

Bioaccumulative potential Bioaccumulation is unlikely.

1,2-Benzenedicarboxylic acid, benzyl isononyl alkyl esters

Bioaccumulative potential BCF: 840, Pimephales promelas (Fat-head Minnow)

12.4. Mobility in soil

Mobility The product is insoluble in water.

Ecological information on ingredients.

Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages.

Mobility Not considered mobile.

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 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. May be mixed with curing agent component to give an inert polymeric material.

Waste class 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.

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14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

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

National regulations

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019 (as amended).

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 (SI 2020 No. 1577) (as amended).

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

Health and Safety at Work etc. Act 1974 (as amended).

Guidance

Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet	<p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>BCF: Bioconcentration Factor.</p> <p>CAS: Chemical Abstracts Service.</p> <p>cATpE: Converted acute toxicity point estimate.</p> <p>DNEL: Derived No Effect Level.</p> <p>EC₅₀: 50% of maximal Effective Concentration.</p> <p>GHS: Globally Harmonized System.</p> <p>IATA: International Air Transport Association.</p> <p>IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>Kow: Octanol-water partition coefficient.</p> <p>LC50: Lethal Concentration to 50 % of a test population.</p> <p>LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>LOAEC: Lowest Observed Adverse Effect Concentration.</p> <p>LOAEL: Lowest Observed Adverse Effect Level.</p> <p>MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.</p> <p>NOAEC: No Observed Adverse Effect Concentration.</p> <p>NOAEL: No Observed Adverse Effect Level.</p> <p>NOEC: No Observed Effect Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>PNEC: Predicted No Effect Concentration.</p> <p>REACH: The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>SVHC: Substances of Very High Concern.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
Classification abbreviations and acronyms	<p>Aquatic Chronic = Hazardous to the aquatic environment (chronic)</p> <p>Skin Sens. = Skin sensitisation</p>
Key literature references and sources for data	SDS from supplier. Source: European Chemicals Agency, http://echa.europa.eu/
Classification procedures according to SI 2019 No. 720	Skin Sens. 1A - H317, Aquatic Chronic 3 - H412: Calculation method.
Revision comments	Revised sections: 2, 3, 11, 15, 16.
Revision date	13/07/2022
Revision	4
Supersedes date	28/02/2022
SDS number	10227
SDS status	Approved.
Hazard statements in full	<p>H317 May cause an allergic skin reaction.</p> <p>H412 Harmful to aquatic life with long lasting effects.</p>

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.