



SAFETY DATA SHEET ARBO MEMBRANE ADHESIVE

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

1.1. Product identifier

Product name ARBO MEMBRANE ADHESIVE

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

Identified uses Adhesive. 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 Eye Irrit. 2 - H319 Skin Sens. 1 - H317
Environmental hazards Not Classified

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements P280 Wear protective gloves.
P280 Wear eye protection.
P337+P313 If eye irritation persists: Get medical advice/ attention.

Contains 3-(2-AMINOETHYLAMINO)-PROPYLTRIMETHOXYSILANE,
DIOCTYL TIN BIS (ACETYLACETONATE)

2.3. Other hazards

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

TRIMETHOXY VINYLSILANE	1-5%
CAS number: 2768-02-7	EC number: 220-449-8
Classification	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H332	
3-(2-AMINOETHYLAMINO)-PROPYLTRIMETHOXYSILANE	1-5%
CAS number: 1760-24-3	EC number: 217-164-6
Classification	
Acute Tox. 4 - H332	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	
DIOCTYL TIN BIS(ACETYLACETONATE)	<1%
CAS number: 54068-28-9	EC number: 483-270-6
Classification	
Skin Sens. 1 - H317	
STOT SE 2 - H371	

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.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Give milk instead of water if readily available. DO NOT induce vomiting. Get medical attention immediately.
Skin contact	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	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	Allergic rash.
Eye contact	Causes serious eye irritation.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media Water spray, fog or mist. 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 Oxides of carbon. Oxides of nitrogen. 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 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 Wear appropriate protective clothing. Avoid contact with eyes and skin.

6.2. Environmental precautions

Environmental precautions Do not 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.

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 spilling. 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 Unspecified 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

Biological limit values No DNEL or PNEC limits available.

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

No specific ventilation requirements.

Eye/face protection

Wear eye protection. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Use 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.

Hygiene measures

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

Respiratory protection

No specific recommendations.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Black.
Odour	Mild.
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.
Evaporation factor	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	1.44 - 1.54 @ 20°C
Solubility(ies)	Insoluble in water.
Auto-ignition temperature	~ 400°C
Viscosity	6,000 - 10,000 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 Not available.

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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.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects There are no data available on this product.

Acute toxicity - oral

Notes (oral LD₅₀) For this endpoint no toxicological data is available for the whole product.

Acute toxicity - dermal

Notes (dermal LD₅₀) For this endpoint no toxicological data is available for the whole product.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) For this endpoint no toxicological data is available for the whole product.

ATE inhalation (gases ppm) 165,782.4933687

ATE inhalation (vapours mg/l) 405.2460949

ATE inhalation (dusts/mists mg/l) 55.26083112

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation Causes eye irritation.

Skin sensitisation

Skin sensitisation The product contains small amounts of sensitisng substances which may cause an allergic reaction in sensitive individuals.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

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Carcinogenicity	Does not contain any substances known to be carcinogenic.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Does not contain any substances known to be toxic to reproduction.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
<u>Aspiration hazard</u>	
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	May cause sensitisation by skin contact.
Eye contact	Causes serious eye irritation.

Toxicological information on ingredients.

TRIMETHOXY VINYLSILANE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 7120 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 3434 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 16.0

Species Rat

ATE inhalation (vapours mg/l) 16.0

SECTION 12: Ecological Information

Ecotoxicity In cross-linked state not soluble in water. Easily separable from water by filtration.

12.1. Toxicity

Toxicity There are no data for the product.

Ecological information on ingredients.

TRIMETHOXY VINYLSILANE

Acute toxicity - fish LC₅₀, 96 hours: >=100 mg/l, Brachydanio rerio (Zebra Fish)
LC₅₀, 96 hours: 191 mg/l, Onchorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 168.7 mg/l, Daphnia magna

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Acute toxicity - aquatic plants EC₅₀, 72 hours: >100 mg/l, Freshwater algae

3-(2-AMINOETHYLAMINO)-PROPYLTRIMETHOXYSILANE

Acute toxicity - fish LC₅₀, 96 hours: 597 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 81 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 5.5mg/l mg/l, Fish

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

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

Disposal methods Collect and place in suitable waste disposal containers and seal securely.

Waste class HP4 Irritant HP13 Sensitising 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

No information required.

14.2. UN proper shipping name

No information required.

14.3. Transport hazard class(es)

No information required.

14.4. Packing group

No information required.

14.5. Environmental hazards

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Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

No information required.

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 No information required.

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	09/05/2017
Revision	1
Supersedes date	30/06/2015
SDS number	10316
Hazard statements in full	H226 Flammable liquid and vapour. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H371 May cause damage to organs if swallowed. 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.