



SAFETY DATA SHEET ARBOTHANE 1245

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

1.1. Product identifier

Product name ARBOTHANE 1245

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

Identified uses Sealant. Adhesive.

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 Not Classified

Environmental hazards Not Classified

2.2. Label elements

Hazard statements NC Not Classified

Supplemental label information EUH204 Contains isocyanates. May produce an allergic reaction.
EUH210 Safety data sheet available on request.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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XYLENE	5-10%
CAS number: 1330-20-7	EC number: 215-535-7
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315	
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2%	1-5%
CAS number: —	EC number: 926-141-6
Classification Asp. Tox. 1 - H304	
ETHYLBENZENE	1-5%
CAS number: 100-41-4	EC number: 202-849-4
Classification Flam. Liq. 2 - H225 Acute Tox. 4 - H332 STOT RE 2 - H373 Asp. Tox. 1 - H304	

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

Composition comments Polyurethane prepolymers with fillers, and auxiliaries.

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	Move affected person to fresh air at once. Get medical attention if symptoms are severe or persist.
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 any discomfort continues.

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

Inhalation	May cause an asthma-like shortness of breath.
Ingestion	May cause discomfort if swallowed.
Skin contact	Allergic rash.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor No specific recommendations.

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/m³. No unusual fire or explosion hazards noted.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of nitrogen. Hydrogen cyanide (HCN). Isocyanates.

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

Personal precautions Wear appropriate protective clothing. Follow precautions for safe handling described in 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. Do not seal containers tightly. Reaction with water forming carbon dioxide.

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 inhalation of vapours. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

Advice on general occupational hygiene 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)

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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

XYLENE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 220 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 441 mg/m³

Sk

ETHYLBENZENE

Long-term exposure limit (8-hour TWA): WEL 100 ppm 441 mg/m³

Short-term exposure limit (15-minute): WEL 125 ppm 552 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

Ingredient comments No DNEL or PNEC values available.

XYLENE (CAS: 1330-20-7)

DNEL	<p>Workers - Inhalation; Long term systemic effects: 77 mg/m³</p> <p>Workers - Inhalation; Short term systemic effects: 289 mg/m³</p> <p>Workers - Dermal; Long term systemic effects: 180 mg/kg/day</p> <p>General population - Inhalation; Long term systemic effects: 14.8 mg/m³</p> <p>General population - Inhalation; Short term systemic effects: 174 mg/m³</p> <p>General population - Inhalation; Short term local effects: 174 mg/m³</p> <p>General population - Dermal; Long term systemic effects: 108 mg/kg/day</p> <p>General population - Oral; Long term systemic effects: 1.6 mg/kg/day</p>
PNEC	<p>- Fresh water; 0.327 mg/l</p> <p>- Marine water; 0.327 mg/l</p> <p>- Intermittent release; 0.327 mg/l</p> <p>- STP; 6.58 mg/l</p> <p>- Sediment (Freshwater); 12.6 mg/kg</p> <p>- Sediment (Marinewater); 12.6 mg/kg</p> <p>- Soil; 2.31 mg/kg</p>

CALCIUM OXIDE (CAS: 1305-78-8)

DNEL	<p>Workers - Inhalation; Long term local effects: 1 mg/m³</p> <p>Workers - Inhalation; Short term local effects: 4 mg/m³</p> <p>General population - Inhalation; Long term local effects: 1 mg/m³</p> <p>General population - Inhalation; Short term local effects: 4 mg/m³</p>
PNEC	<p>- Fresh water; 0.37 mg/l</p> <p>- Marine water; 0.24 mg/l</p> <p>- Intermittent release; 0.37 mg/l</p> <p>- STP; 2.27 mg/l</p> <p>- Soil; 817.4 mg/kg</p>

CALCIUM DIHYDROXIDE (CAS: 1305-62-0)

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DNEL	<p>Workers - Inhalation; Long term local effects: 1 mg/m³</p> <p>Workers - Inhalation; Short term local effects: 4 mg/m³</p> <p>General population - Inhalation; Long term local effects: 1 mg/m³</p> <p>General population - Inhalation; Short term local effects: 4 mg/m³</p>
PNEC	<p>- Fresh water; 0.49 mg/l</p> <p>- Marine water; 0.32 mg/l</p> <p>- Intermittent release; 0.49 mg/l</p> <p>- STP; 3 mg/l</p> <p>- Soil; 1080 mg/kg</p>

8.2. Exposure controls

Protective equipment



Appropriate engineering controls	Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Not generally required.
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. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC).
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	If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Grey. Buff.
Odour	Mild.
Odour threshold	Not applicable.
pH	pH (concentrated solution): Not applicable.
Melting point	Not determined.
Initial boiling point and range	137°C @ 760 mm Hg
Flash point	> 40°C CC (Closed cup).
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	The product is not subject to classification because its speed of combustion is lower than the limit of the regulation.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 0.6 % Upper flammable/explosive limit: 8 %

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Vapour pressure	Not applicable. @ °C	
Vapour density	Not applicable.	
Relative density	1.16 @ 20°C	
Solubility(ies)	Not applicable. @ °C	
Partition coefficient	: Not applicable.	
Auto-ignition temperature	>200°C	
Viscosity	~7000 P @ 20°C	
Explosive properties	Not considered 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 Isocyanates react with water to liberate carbon dioxide. Any ingress of moisture into an isocyanate container, whether full or empty, can lead to a pressure build up and subsequent explosion. The following materials may react with the product: Acids. Alkalis. Alcohols, glycols. Amines.

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. Avoid contact with the following materials: Water, moisture.

10.5. Incompatible materials

Materials to avoid Amines. Alcohols, glycols. Strong acids. Strong alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide (HCN). Isocyanates.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects The product has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly.

Acute toxicity - dermal

ATE dermal (mg/kg) 18,333.33

Acute toxicity - inhalation

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ATE inhalation (gases ppm) 65,217.39

ATE inhalation (vapours mg/l) 733.33

ATE inhalation (dusts/mists mg/l) 100.0

Skin corrosion/irritation

Animal data 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.

Respiratory sensitisation

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

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 Does not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

Inhalation Prolonged or repeated over-exposure to high concentrations of vapours may lead to chronic sensitising effects in sensitive individuals. May cause an asthma-like shortness of breath.

Ingestion May cause discomfort if swallowed.

Skin contact Product may cause an allergic reaction in hypersensitive persons.

Eye contact May cause temporary eye irritation.

Acute and chronic health hazards The product contains small quantities of isocyanate. May cause respiratory allergy. May cause respiratory system irritation.

Medical considerations Chronic respiratory and obstructive airway diseases. Skin disorders and allergies.

Toxicological information on ingredients.

XYLENE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,523.0

Species Rat

ATE oral (mg/kg) 3,523.0

Acute toxicity - dermal

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

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Acute toxicity inhalation 5,000.0
(LC₅₀ gases ppmV)

Species Rat

ATE inhalation (gases 5,000.0
ppm)

Skin corrosion/irritation

Animal data Primary dermal irritation index: 2.21 Moderately irritating.

Serious eye damage/irritation

Serious eye Moderately irritating.
damage/irritation

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment. The product has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/ EC and classified for ecotoxicological hazards accordingly.

12.1. Toxicity

Toxicity There are no data for the product.

Ecological information on ingredients.

XYLENE

Acute toxicity - fish LC₅₀, 96 hours: 2.6 - 4.2 mg/l, Onchorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic IC₅₀, 24 hours: 2.2 mg/l, Daphnia magna
invertebrates

Acute toxicity - aquatic EC₅₀, 48 hours: 2.2 mg/l, Selenastrum capricornutum
plants

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient : Not applicable.

Ecological information on ingredients.

XYLENE

Bioaccumulative potential BCF: 29,

Partition coefficient log Pow: 3.2

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

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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.

Waste class Recommended EWC Code 08 04 10

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

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 No information required.

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

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Revision date	15/05/2017
Revision	4
Supersedes date	10/05/2017
SDS number	10273
Hazard statements in full	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H315 Causes skin irritation. H332 Harmful if inhaled. H373 May cause damage to organs (Hearing organs) through prolonged or repeated exposure.

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.