Contents

1. Scope of Works / Description of Systems of Plant & Equipment

Scope of Works

Works undertaken / supplied (The Scope) Joint Sealing(Mastic Pointing)

Materials used:

Internal Concrete sawn cut joints in floor slab:

Arbomeric Mp20 Internal Concrete isolation joints

in floor slab: Arbothane 1245 External Concrete

yard : Arbomeric Mp20

Internal silicone to office areas: Arbosil LM

Internal silicone to toilets/tiled areas: Arbosil HM & Arbosil LM

2. Suppliers and Manufacturers Directory

3. Manufacturers Information

ARBO

ARBOMERIC MP20

Arbomeric MP20 is a one part high modulus modified polymer sealant which cures on exposure to moisture vapour to form a tough but elastic rubber.

MAIN APPLICATIONS

Arbomeric MP 20 is recommended for use in many forms of construction including structural joints in heavy cladding, structural movement joints in floors and floor joints in heavily trafficked areas.

NB Not recommended for joints in lightweight cladding and swimming pools.
Is over-paintable once fully cured; pre-use tests are advised to demonstrate compatibility with individual paints.

APPLICATION INSTRUCTIONS

Joint preparation

The joint surfaces must be clean, dry and free from all contamination. The surfaces should be degreased using the appropriate Arbo Cleaner. Primers may be required on some substrates. It is recommended that Adshead Ratcliffe Technical Services Department should be consulted and advice obtained with regard to the choice of primer for specific purposes.

Joint Backing

Where applicable, appropriate joint filler e.g. closed cell polyethylene foam, should be used to provide the correct joint depth.

All joint preparation, priming, and sealant application should be carried out in accordance with BS 8000 Part 16, the British Standard for the sealing of joints in buildings using sealants.

Application

Arbomeric MP20 is supplied in polyethylene 380ml cartridges and 600ml foils

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TECHNICAL DATA	
Skin Time at 20°C/65% RH:	15 minutes
Application temperature:	+5°C to + 35°C
Service temperature:	-40°C to +120°C
Chemical resistance:	Resistant to most dilute acids and alkalis. Organic solvents may cause the sealant to swell and lose adhesion. Strong cleaning agents can cause surface deterioration and may affect the efficiency of the material.
UV resistance:	Very good
Service life:	20 years + (when used in trafficked areas the life may be reduced)
Movement Accommodation:	
Butt joints (movement in tension and compression):	35%
Lap joints (movement in shear):	70%
Colours:	White, Grey, Black
Modulus @ 100 % Extension:	1.12 N/mm²
Ultimate Elongation:	220%
Tensile Strength @ Break:	1.85 N/mm²

JOINT SIZE SUITABILITY

Joint Width

Minimum 6mm
Maximum 25mm (single application); 35mm (multiple applications)

Joint Depth

Minimum 10mm on porous substrates (12mm in floor joints)
Minimum 6mm on non-porous substrates (12mm in floor joints)
Maximum 20mm

Width: Depth ratio (within above min/max restrictions)

2:1 butt joints
1:1 lap joints/floor joints

PACKAGING

25 x 380ml Polyethylene Cartridges per box. Polyethylene Nozzles are included in each box.

STORAGE LIFE

12 months in original unopened packaging stored in a cool, dry place out of direct sunlight.

HEALTH AND SAFETY

No particular health hazards are associated with this product but please consult Material Safety Data Sheet for full information.

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ACCESSORIES

Primers
Arbo Primer 2650 (500ml tin) Yield approximately 125 metres per tin

Cleaners
Arbo Cleaner No.17- 1 Litre Tin (Xylene based – not suitable for use with plastics or delicate finishes)
Arbo Cleaner No. 16 - 1 Litre Tin (Alcohol Based)

Ancillary Equipment
Polyethylene Nozzles
Arbo Caulking Guns

QUANTITY ESTIMATOR

JOINT SIZE (MM)	METRES/ LITRE
6 x 6	27.8
9 x 6	18.5
12 x 9	9.3
18 x 10	5.6
25 x 10	4.0

SPECIFICATION COMPLIANCE

BS EN ISO 11600 – F – 20 HM

CE Certified under the Harmonized European Standard EN15651. Please refer to separate Declaration of Performance for more details.

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SAFETY DATA SHEET
ARBOSIL HDLM

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

1.1. Product identifier

Product name ARBOSIL HDLM

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

Physical hazards Not Classified

Health hazards 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.

Precautionary statements P280 Wear protective gloves.

Contains METHYL-0,0',0''-BUTAN-2-ONE-TRIOXIMOSILANE

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ARBOSIL HDLM

METHYL-0,0',0"-BUTAN-2-ONE-TRIOXIMOSILANE	1-5%
CAS number: 22984-54-9 EC number: 245-366-4	

Classification
Eye Irrit. 2 - H319
Skin Sens. 1 - H317
STOT RE 2 - H373

The Full Text for all R-Phrases and Hazard Statements are 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 if any discomfort continues.

Skin contact Wipe off excess material with cloth or paper. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing. 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 May cause temporary eye irritation.

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 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 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.

ARBOSIL HDLM

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

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/manufacturer, who can provide information about the breakthrough time of the glove material.

Hygiene measures Wash hands 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.

ARBOSIL HDLM

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Various colours.
Odour	Slight.
Odour threshold	Not determined.
pH	pH (concentrated solution): 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	1.28 @ 20C
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not determined.
Viscosity	~ 10,000 P @ 20°C
Explosive properties	Not applicable.
Oxidising properties	Not applicable.

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. Moisture curing process releases: a small amount of butanone-2-oxime (MEKO)

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

ARBOSIL HDLM

Materials to avoid 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. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Butanone-2-oxime (MEKO) is damaging to nasal membranes in rats and mice at a concentration in excess of 10ppm over a prolonged period of time.

Acute toxicity - oral

Notes (oral LD_{50}) For this endpoint no toxicological data is available for the whole product.

Acute toxicity - dermal

Notes (dermal LD_{50}) For this endpoint no toxicological data is available for the whole product.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) For this endpoint no toxicological data is available for the whole product.

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.

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.

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 symptoms known.

Ingestion May cause discomfort if swallowed.

Skin contact May cause sensitisation by skin contact.

Eye contact May cause irritation to eyes.

SECTION 12: Ecological Information

ARBOSIL HDLM

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.

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.

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

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 Confirm disposal procedures with environmental engineer and local regulations.

Waste class Recommended EWC Code 08 04 09* HP13 Sensitising

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 MARPOL73/78 and the IBC Code

ARBOSIL HDLM

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. Regulation (EC) 1272/2008 CLP.
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	Classification and labelling according to CLP Regulations.
Revision date	01/06/2015
Supersedes date	18/08/2014
SDS number	10430
Hazard statements in full	H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H373 May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed.

ARBO

ARBOSIL HM

Arbosil HM is a One-part High Modulus Acetoxy Cure Silicone Sealant, which cures rapidly on exposure to moisture vapour to form a resilient elastic silicone rubber. This product contains a fungicide to make it resistant to fungus and mildew. Arbosil HM bonds well to acrylic, ceramic, metal, glass and laminate surfaces, and will not discolour during its service life, whilst maintaining good elasticity.

MAIN APPLICATIONS

This product is recommended for the sealing around all types of sanitary fittings including baths, showers, urinals, sinks and wash basins in both domestic and commercial locations.

It is suitable for use in areas of high humidity.

Can be used as to seal around laminates and worktops.

Suitable for both interior and exterior use.

Use for sealing of aluminium sheets and components.

Use as an adhesive to bond PVC trims.

NB: It is not recommended for overpainting, or use against most metal surfaces particularly soft metals like brass or lead, and is not for use against natural stone. (Contact Adshead Ratcliffe Technical Services for advice on which product to use against these substrates).

CARLISLE CM EUROPE

APPLICATION INSTRUCTIONS

Joint Preparation

The joint surfaces must be clean, dry and free from all contamination and any loose materials. The surfaces should be degreased using the appropriate Arbo Cleaner. Primers may be required on some substrates. It is recommended that Adshead Ratcliffe Technical Services Department should be consulted and advice obtained with regard to the choice of primer for specific purposes.

Joint Backing

Where applicable, appropriate joint filler e.g. closed cell polyethylene foam, should be used to provide the correct joint depth.

Application

Arbosil HM is supplied in cartridges and can be applied into the joint using an Arbo Caulking Gun. All joint preparation, priming, and sealant application should be carried out in accordance with BS 8000 Part 16, the British Standard for the sealing of joints in buildings using sealants.

TECHNICAL DATA	
Colours	White, Black, Translucent, Aluminium, Jasmine, Manhattan.
Skin Time at 20° C/65 % RH:	10 minutes
Application Temperature:	+ 5° C to + 50° C
Service Temperature:	- 50° C to + 150° C
Typical Shore Hardness:	20
Cure Rate at 20° C/65 % RH:	2mm/24 hours
Chemical Resistance:	Resistant to most alkalis and dilute acids; organic solvents may cause the sealant to swell and lose adhesion, but do not directly dissolve the sealant.
UV Resistance:	Very Good
Service Life:	25 years+
Movement Accommodation:	Butt joints (movement in tension and compression): 25 %. Do not exceed ± 20 % in any one direction
Lap joints (movement in shear):	50 %. Do not exceed ± 40 % in any one direction

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JOINT SIZE SUITABILITY

Joint Width
Minimum 6mm
Maximum 25mm (single application);
35mm (multiple applications)

Joint Depth
Minimum 10mm on porous substrates
Minimum 6mm on non-porous substrates
Maximum 15mm

Width: Depth ratio
(within above min/max restrictions)
2:1 butt joints
1:1 lap joints

STORAGE LIFE

12 months in original unopened package stored in a cool, dry place out of direct sunlight. Protect from frost.

HEALTH & SAFETY

No particular health hazards are associated with this product but please consult Material Safety Data Sheet for full information.

PACKAGING

25 x 310ml plastic cartridges. Polyethylene nozzles are included in each box.

ACCESSORIES

Primers
Arbo Primer 2650 500ml tin (yield approximately 125 metres per tin)
Arbo Primer 2402 500ml tin (yield approximately 200 metres per tin)
Arbo Primer 2172 500ml tin (yield approximately 200 metres per tin)
Please refer to Adshead Ratcliffe Technical Services for which primers to be used with individual substrates.

Cleaners
Arbo Cleaner No. 15 - 500ml Tin
(Ketone based - suitable for unpainted metal, concrete, brick and glass)
Arbo Cleaner No. 16 - 1 Litre Tin
(Xylene based - suitable for unpainted metal, concrete and brick)
Please refer to Adshead Ratcliffe Technical Services for advices on which cleaner to use.

Ancillary Equipment
Polyethylene Nozzles
Arbo Caulking Guns
Arbo Silicone Tooling Block
Latex Gloves
Two Ply Small Blue Wipes

SPECIFICATION COMPLIANCE

BS EN ISO 11600 F/G 20HM

CE Certified under the Harmonized European Standard EN15651. Please refer to separate Declaration of Performance for more details.

QUANTITY ESTIMATOR

JOINT SIZE (MM)	METRES/LITRE
6 x 6	27.75
9 x 6	18.50
12 x 9	9.25
18 x 10	5.55
25 x 10	4.0

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SAFETY DATA SHEET
ARBOSIL HM

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

1.1. Product identifier

Product name ARBOSIL HM

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

Identified uses General purpose silicone sealant Glass and sanitary 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

2.2. Label elements

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Composition comments Polydimethylsiloxane with fillers, auxiliaries. acetoxysilane crosslinking agent.

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 any discomfort continues.

Ingestion Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if a large quantity has been ingested. Show this Safety Data Sheet to the medical personnel.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

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

ARBOSIL HM

Inhalation	May cause discomfort.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor	See Section 4.1

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray. 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	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. Acetic acid.

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours.
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	Provide adequate ventilation. Avoid inhalation of vapours and contact with skin and eyes. Wear personal protective equipment (See section 8).

6.2. Environmental precautions

Environmental precautions	Do not allow into watercourses. Contain spillage with sand, earth or other suitable non-combustible material.

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. Provide adequate ventilation. 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.

ARBOSIL HM

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

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 For prolonged or repeated skin contact use suitable protective gloves. It is recommended that gloves are made of the following material: Viton rubber (fluoro rubber). Gloves suitable for up to 60 minutes use.

Other skin and body protection Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. Wash at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn. Use of ABEK mask filter during prolonged exposure advised.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Uncured -paste. Cured - rubber.

Colour Various colours.

Odour Pungent.

Odour threshold Acetic acid: 0.025 mg/m3

pH Product displays acidic reaction with water.

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 Lower flammable/explosive limit: 4 (acetic acid) Upper flammable/explosive limit: 17 (acetic acid)

ARBOSIL HM

Vapour pressure	Not applicable.
Vapour density	Not applicable.
Solubility(ies)	Practically insoluble Hydrolytic decomposition occurs.
Partition coefficient	: Not applicable.
Auto-ignition temperature	~ 400°C
Decomposition Temperature	Not determined.
Viscosity	~8000 P @ 20°C
Explosive properties	Not applicable.
Explosive under the influence of a flame	No
Oxidising properties	Does not meet the criteria for 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. Moisture curing process releases: a small amount of acetic acid

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not known. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid	Avoid contact with the following materials: Water, moisture.

10.5. Incompatible materials

Materials to avoid	Reacts with water, basic substances and alcohols. Reaction causes the formation of acetic acid.

10.6. Hazardous decomposition products

Hazardous decomposition products	By hydrolysis: Acetic acid. Temperatures of ~ 150 C may generate: A small amount of formaldehyde, through oxidation.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50})	Assessed on the basis of constituents; LD50, oral, rat >2000mg/Kg. Conclusion by analogy. ATE (mixture) oral >5000mg/Kg

Acute toxicity - dermal

Notes (dermal LD_{50})	LD50, dermal, rabbit >2009mg/Kg Conclusion by analogy.

Skin corrosion/irritation

Animal data	Not irritating (rabbit). Conclusion by analogy.

ARBOSIL HM

Serious eye damage/irritation

Serious eye damage/irritation Not irritating (rabbit). Conclusion by analogy.

Skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Specific target organ toxicity - repeated exposure

STOT - repeated exposure For this endpoint no toxicological data is available for the whole product.

Aspiration hazard

Aspiration hazard Not relevant, due to the form of the product.

Inhalation No specific health hazards known.

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

Skin contact Skin irritation should not occur when used as recommended.

Eye contact Evaluation in analogy to a tested similar product: Slight irritation possible.

Acute and chronic health hazards Moisture curing process releases a small amount of acetic acid which can irritate skin and mucous membranes.

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity There are no data for the product. Toxicity to fish is improbable.

12.2. Persistence and degradability

Persistence and degradability Silicone content: biologically not degradable.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation in aquatic organisms is not expected.

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.

ARBOSIL HM

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. Confirm disposal procedures with environmental engineer and local regulations.

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 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

ARBOSIL HM

Revision	1
Supersedes date	17/06/2015
SDS number	20332

ARBO

ARBOSIL LM

Arbosil LM is a one part Neutral Cure Silicone Sealant which cures on exposure to moisture vapour to form an elastic silicone rubber.

MAIN APPLICATIONS

Recommended for perimeter sealing of PVCu frames and sealing joints in brickwork, the MVP and Heel Bead methods of glazing insulating glass units, remedial glazing, and sealing joints in translucent roofing sheets.

NB: It is not recommended for overpainting, use in glass wall assemblies and use against natural stone.

APPLICATION INSTRUCTIONS

Joint Preparation

The joint surfaces must be clean, dry and free from all contamination. The surfaces should be degreased using the appropriate Arbo Cleaner. Primers may be required on some substrates. It is recommended that Adshead Ratcliffe Technical Services Department should be consulted and advice obtained with regard to the choice of primer for specific purposes.

Joint Backing

Where applicable, appropriate joint filler e.g. closed cell polyethylene foam, should be used to provide the correct joint depth. All joint preparation, priming, and sealant application should be carried out in accordance with BS 8000 Part 16, the British Standard for the sealing of joints in buildings using sealants.

Application

Arbosil LM is supplied in polyethylene 310 and 380ml cartridges and can be applied into the joint using an Arbo Caulking Gun

CARLISLE CM EUROPE

TECHNICAL DATA	
Colours	White, Black, Grey, Translucent, Anthracite, Brown, Buff, Dark Bronze, Portland, Rustic Red, Magnolia.
Skin Time at 20° C/65 % RH (Coloured Grades):	10 minutes
Skin Time at 20° C/65 % RH (Translucent Grade):	20 minutes
Application Temperature:	+ 5° C to + 40° C
Service Temperature:	- 40° C to + 120° C
Typical Shore A Hardness:	30
Cure Rate at 20° C/65 % RH:	2mm/24 hours
Chemical Resistance:	Resistant to most dilute acids and alkalis. Organic solvents may cause the sealant to swell and lose adhesion.
UV Resistance:	Very Good
Service Life:	25 years+
Movement Accommodation:	Butt joints (movement in tension and compression): 50 %. Do not exceed ± 33 % in any one direction
Lap joints (movement in shear):	100 %. Do not exceed ± 66 % in any one direction

JOINT SIZE SUITABILITY

Joint Width
Minimum 6mm
Maximum 25mm (single application);
50mm (multiple applications)

Joint Depth
Minimum 10mm on porous substrates
Minimum 6mm on non-porous substrates
Maximum 15mm

Width: Depth ratio
(within above min/max restrictions)
2:1 butt joints
1:1 lap joints

STORAGE LIFE

12 months in original unopened packaging stored in a cool, dry place out of direct sunlight.

HEALTH & SAFETY

Contains Oximosilanes (Not Translucent Grade). Please consult Material Safety Data Sheets for full information LM Translucent has its own Material Safety Data Sheet.

PACKAGING

25 x 310ml or 380ml Polyethylene Cartridges per box. Polyethylene Nozzles are included in each box.

CARLISLE® Adshead Ratcliffe & Co Ltd. **United Kingdom**

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ACCESSORIES

Primers

Arbo Primer 2650 (500ml tin) Yield approximately 125 metres per tin
Arbo Primer 2402 (500ml tin) Yield approximately 200 metres per tin
Arbo Primer 2172 (500ml tin) Yield approximately 200 metres per tin

Cleaners

Arbo Cleaner No.17- 1 Litre Tin (Xylene based – not suitable for use with plastics or delicate finishes)
Arbo Cleaner No. 16 - 1 Litre Tin (Alcohol Based)

Ancillary Equipment

Polyethylene Nozzles
Arbo Caulking Guns

SPECIFICATION COMPLIANCE

BS EN ISO 11600 – F/G – 25 LM

BS 5889 Type A: 1989

CE Certified under the Harmonized European Standard EN15651. Please refer to separate Declaration of Performance for more details.

QUANTITY ESTIMATOR

JOINT SIZE (MM)	METRES/LITRE
6 x 6	27.8
9 x 6	18.5
12 x 9	9.3
18 x 10	5.6
25 x 10	4.0

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ARBO

ARBOTHANE 1245

Arbothane 1245 is a one part Polyurethane Sealant which cures on exposure to moisture vapour to form a tough but flexible rubber. Arbothane 1245 has good adhesion to concrete, brickwork, metals and many other common construction substrates.

MAIN APPLICATIONS

Recommended for use in floor joints, expansion joints and structural cladding applications.

NB: Not recommended for use against natural stone.

APPLICATION INSTRUCTIONS

Joint Preparation

The joint surfaces must be clean, dry and free from all contamination. The surfaces should be degreased using the appropriate Arbo Cleaner. Primers may be required on some substrates. It is recommended that Adshead Ratcliffe Technical Services Department should be consulted and advice obtained with regard to the choice of primer for specific purposes.

Joint Backing

Where applicable, appropriate joint filler e.g. closed cell polyethylene foam, should be used to provide the correct joint depth.

Application

All joint preparation, priming, and sealant application should be carried out in accordance with BS 8000 Part 16, the British Standard for the sealing of joints in buildings using sealants. Arbothane 1245 is supplied in 600ml foil packs and can be applied into the joint using an Arbo Foil Pack Gun.

CARLISLE CM EUROPE

TECHNICAL DATA	
Colours	Grey
Skin Time at 20° C/65 % RH:	90 minutes
Application Temperature:	+ 5° C to + 40° C
Service Temperature:	- 30° C to + 110° C
Typical Shore A Hardness:	45
Cure Rate at 20° C/65 % RH:	2mm/24 hours
Chemical Resistance:	Moderate resistance to most dilute acids and alkalis. Organic solvents may cause the sealant to swell and lose adhesion.
UV Resistance:	Very Good
Service Life:	15 years +
Movement Accommodation:	Butt joints (movement in tension and compression): 35 %.
Lap joints (movement in shear):	70 %

JOINT SIZE SUITABILITY

Joint Width
Minimum 6mm
Maximum 25mm (single application);
for advice on multiple applications please contact Adshead Ratcliffe Technical Services Department.

Joint Depth
Minimum 10mm on porous substrates
Minimum 6mm on non-porous substrates
Maximum 20mm

Width: Depth ratio
(within above min/max restrictions)

2:1 butt joints
1:1 lap joints

STORAGE LIFE

12 months in original unopened packaging stored in a cool, dry place out of direct sunlight.

HEALTH & SAFETY

Contains Isocyanates. Please consult Material Safety Data Sheet for full information.

PACKAGING

20 x 600ml Foils per box. Polyethylene Nozzles are included in each box.

CARLISLE® Adshead Ratcliffe & Co Ltd. **United Kingdom**

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ACCESSORIES

Primers

Arbokol AG2 Porous Primer (500ml tin). Yield approximately 125 metres per tin
Arbo Primer 7750 (500ml tin). Yield approximately 200 metres per tin

Cleaners

Arbo Cleaner No.17- 1 Litre Tin
(Xylene based – not suitable for use with plastics ordelicate finishes)
Arbo Cleaner No. 16 - 1 Litre Tin
(Alcohol Based)

Equipment

Arbo Foil Pack Gun

SPECIFICATION COMPLIANCE

BS EN ISO 11600 – F – 25 HM

CE Certified under the Harmonized European Standard EN15651. Please refer to separate Declaration of Performance for more details.

QUANTITY ESTIMATOR

JOINT SIZE (MM)	METRES/LITRE
6 x 6	27.8
9 x 6	18.5
12 x 9	9.3
18 x 10	5.6
25 x 10	4.0

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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

ARBOTHANE 1245

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.

ARBOTHANE 1245

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)

ARBOTHANE 1245

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
Workers - Inhalation; Long term systemic effects: 77 mg/m³
Workers - Inhalation; Short term systemic effects: 289 mg/m³
Workers - Dermal; Long term systemic effects: 180 mg/kg/day
General population - Inhalation; Long term systemic effects: 14.8 mg/m³
General population - Inhalation; Short term systemic effects: 174 mg/m³
General population - Inhalation; Short term local effects: 174 mg/m³
General population - Dermal; Long term systemic effects: 108 mg/kg/day
General population - Oral; Long term systemic effects: 1.6 mg/kg/day

PNEC
- Fresh water; 0.327 mg/l
- Marine water; 0.327 mg/l
- Intermittent release; 0.327 mg/l
- STP; 6.58 mg/l
- Sediment (Freshwater); 12.6 mg/kg
- Sediment (Marinewater); 12.6 mg/kg
- Soil; 2.31 mg/kg

CALCIUM OXIDE (CAS: 1305-78-8)

DNEL
Workers - Inhalation; Long term local effects: 1 mg/m³
Workers - Inhalation; Short term local effects: 4 mg/m³
General population - Inhalation; Long term local effects: 1 mg/m³
General population - Inhalation; Short term local effects: 4 mg/m³

PNEC
- Fresh water; 0.37 mg/l
- Marine water; 0.24 mg/l
- Intermittent release; 0.37 mg/l
- STP; 2.27 mg/l
- Soil; 817.4 mg/kg

CALCIUM DIHYDROXIDE (CAS: 1305-62-0)

ARBOTHANE 1245

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

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 %

ARBOTHANE 1245

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. Explosive properties Not applicable.

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

ARBOTHANE 1245

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 (LD_{50} 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

ARBOTHANE 1245

Acute toxicity inhalation (LC_{50} gases ppmV)	5,000.0
Species	Rat
ATE inhalation (gases ppm)	5,000.0

Skin corrosion/irritation

Animal data	Primary dermal irritation index: 2.21 Moderately irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Moderately irritating.

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	LC_{80}, 96 hours: 2.6 - 4.2 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	IC_{80}, 24 hours: 2.2 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{80}, 48 hours: 2.2 mg/l, Selenastrum capricornutum

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

ARBOTHANE 1245

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 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

ARBOTHANE 1245

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.

4. As Built Drawings

N/A

5. Testing & Commissioning Results and Certificates

N/A

6. Operation

N/A

7. Maintenance Procedures and Planned Maintenance

N/A

8. Spares Information

N/A

9. Guarantees and Warranties

N/A

winvic
DOING IT RIGHT.

10. Replacement Strategy

N/A

11. Demolition Decommissioning or Disposal

Disposal Requirements

Waste Treatment Methods for ARBOSIL HDLM

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
Confirm disposal procedures with environmental engineer and local regulations.

Waste Class
Recommended EWC Code 08 04 09* HP13 Sensitising.

Waste Treatment Methods for ARBOSIL HM

General Information
When handling waste, the safety precautions applying to the 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.
Confirm disposal procedures with environmental engineer and local regulations.

Waste Class
Recommended EWC Code 08 04 10.

Waste Treatment Methods for ARBOTHANE 1245

General Information
When handling waste, the safety precautions applying to the handling of the product should be considered.

Disposal Methods
Dispose of waste to licensed waste disposal site in accordance with the r7equirements of the local Waste Disposal Authority.

Waste Class
Recommended EWC Code 08 04 10.