



## SAFETY DATA SHEET ARBOKOL SECURE CURING AGENT

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

#### 1.1. Product identifier

**Product name** ARBOKOL SECURE CURING AGENT

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

#### 1.3. Details of the supplier of the safety data sheet

**Supplier** Adshead Ratcliffe & Co. Ltd.  
Derby Road, Belper  
Derbyshire.  
DE56 1WJ  
Tel. (+44) 01773 826661  
Fax. (+44) 01773 821215  
sds@arbo.co.uk

#### 1.4. Emergency telephone number

**Emergency telephone** (+44) 01773 826661 (office hours only)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

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

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

**Environmental** The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

#### 2.2. Label elements

##### Pictogram



**Signal word** Warning

**Hazard statements**  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.

## ARBOKOL SECURE CURING AGENT

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

### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

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

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

#### SECTION 4: First aid measures

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### 4.1. Description of first aid measures

<b>General information</b>	In all cases of doubt, or if symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
<b>Inhalation</b>	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
<b>Ingestion</b>	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.
<b>Skin contact</b>	Wipe off excess material with cloth or paper. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

<b>Inhalation</b>	No specific symptoms known.
<b>Ingestion</b>	May cause discomfort if swallowed. May cause irritation to mouth, throat and stomach.
<b>Skin contact</b>	Skin irritation. Allergic rash.
<b>Eye contact</b>	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

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

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

##### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Toxic gases or vapours.
<b>Hazardous combustion products</b>	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

##### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Control run-off water by containing and keeping it out of sewers and watercourses.
<b>Special protective equipment for firefighters</b>	Wear self contained breathing apparatus.

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet.
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##### 6.2. Environmental precautions

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

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**Methods for cleaning up** When handling waste, the safety precautions applying to handling of the product should be considered. Wear necessary protective equipment. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See section 12. For waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Avoid contact with skin and eyes. Persons susceptible to allergic reactions should not handle this product. Good personal hygiene procedures should be implemented.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place.

**Storage class** Miscellaneous hazardous material storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

**Usage description** Gunnable sealant / adhesive.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

#### **HYDROGENATED TERPHENYL**

Short-term exposure limit (15-minute): 0.5 ppm 4.8 mg/m<sup>3</sup>

#### **TERPHENYL**

Short-term exposure limit (15-minute): WEL 0.5 ppm 4.8 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

#### HYDROGENATED TERPHENYL (CAS: 61788-32-7)

#### **DNEL**

Workers - Inhalation; Long term systemic effects: 8.38 mg/m<sup>3</sup>  
 Workers - Inhalation; Long term local effects: 83.8 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 46.3 mg/kg/day  
 Workers - Dermal; Long term local effects: 0.2 mg/cm<sup>2</sup>  
 General population - Inhalation; Long term systemic effects: 2.5 mg/m<sup>3</sup>  
 General population - Inhalation; Long term local effects: 25 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 27.8 mg/kg/day  
 General population - Dermal; Long term local effects: 0.123 mg/cm<sup>2</sup>  
 General population - Oral; Long term systemic effects: 0.3 mg/kg/day

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<b>PNEC</b>	<ul style="list-style-type: none"> <li>- Fresh water; 0.0001 mg/l</li> <li>- Marine water; 0.00001 mg/l</li> <li>- Intermittent release; 0.001 mg/l</li> <li>- STP; 10.3 mg/l</li> <li>- Sediment (Freshwater); 3.16 mg/kg</li> <li>- Sediment (Marinewater); 0.316 mg/kg</li> <li>- Soil; 0.631 mg/kg</li> <li>- Oral (food); 0.22 mg/kg</li> </ul>
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### 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.

#### Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

#### Hygiene measures

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

#### Environmental exposure controls

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Paste.
<b>Colour</b>	Grey. White.
<b>Odour</b>	Slight.
<b>Odour threshold</b>	Not applicable.
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not applicable.
<b>Initial boiling point and range</b>	Not applicable.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Vapour pressure</b>	Not applicable.
<b>Vapour density</b>	Not applicable.

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

### 9.2. Other information

**Other information** None.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Not determined. Will not polymerise.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

**Materials to avoid** Strong acids. Strong alkalis. Strong oxidising agents.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** There are no data available on this product.

### Skin corrosion/irritation

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

### Serious eye damage/irritation

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

### Skin sensitisation

**Skin sensitisation** No specific test data are available.

### Germ cell mutagenicity

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

### Carcinogenicity

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

**Reproductive toxicity**

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

**Specific target organ toxicity - single exposure**

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

**Specific target organ toxicity - repeated exposure**

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

**Aspiration hazard**

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

**Inhalation** No specific health hazards known.

**Ingestion** May cause discomfort if swallowed.

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

**Eye contact** Irritating to eyes.

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

**Toxicological information on ingredients.**

**EPOXY RESIN (Number average MW <= 700 )**

**Acute toxicity - oral**

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> >2000 mg/kg, Oral, Rat

**Acute toxicity - dermal**

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> >2000 mg/kg, Dermal, Rat

**Skin corrosion/irritation**

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

**Serious eye damage/irritation**

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

**Skin sensitisation**

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

**SECTION 12: Ecological Information**

**Ecotoxicity** The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

**12.1. Toxicity**

**Toxicity** There are no data for the product.

**Ecological information on ingredients.**

**EPOXY RESIN (Number average MW <= 700 )**

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 1.5 mg/l, Algae

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

### HYDROGENATED TERPHENYL

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

### TERPHENYL

#### Acute aquatic toxicity

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

#### 12.2. Persistence and degradability

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

#### Ecological information on ingredients.

##### EPOXY RESIN (Number average MW ≤ 700 )

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

#### 12.3. Bioaccumulative potential

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

#### Ecological information on ingredients.

##### EPOXY RESIN (Number average MW ≤ 700 )

<b>Bioaccumulative potential</b>	BCF: 31,
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**Partition coefficient**            log Pow: 3.242

### HYDROGENATED TERPHENYL

**Bioaccumulative potential**    BCF: 700 - 5200,

**Partition coefficient**            log Pow: 6.5

### TERPHENYL

**Partition coefficient**            : log Pow 6.03

#### 12.4. Mobility in soil

**Mobility**                            The product is insoluble in water.

#### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment**    This product does not contain any substances classified as PBT or vPvB.

#### 12.6. Other adverse effects

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

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

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

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

### SECTION 14: Transport information

#### 14.1. UN number

**UN No. (ADR/RID)**                3077

**UN No. (IMDG)**                    3077

**UN No. (ICAO)**                    3077

**UN No. (ADN)**                     3077

#### 14.2. UN proper shipping name

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

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

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

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

#### 14.3. Transport hazard class(es)

**ADR/RID class**                     9

**ADR/RID classification code**    M7

**ADR/RID label**                    9

**IMDG class**                        9

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ICAO class/division 9

ADN class 9

### Transport labels



### 14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

EmS F-A, S-F

ADR transport category 3

Emergency Action Code 2Z

Hazard Identification Number (ADR/RID) 90

Tunnel restriction code (E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

#### SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU legislation** Regulation (EC) 1907/2006 REACH (as amended).  
Regulation (EC) 1272/2008 CLP (as amended).

**Guidance** Workplace Exposure Limits EH40.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

#### SECTION 16: Other information

**Revision comments** General review

**Revision date** 10/05/2017

**Revision** 1

**Supersedes date** 01/06/2015

**SDS number** 10289

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### Hazard statements in full

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H413 May cause long lasting harmful effects to aquatic life.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.