

SAFETY DATA SHEET

ARBO

ARBOKOL® SECURE Base

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

1.1 Product identifier

Product name : ARBOKOL® SECURE Base
Product description : Base component of: Two-component, epoxy-based adhesive
Other means of identification : Not available.

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

Identified uses	
Base component of: Two-component, epoxy-based adhesive	
Uses advised against	Reason
For professional users only.	-

1.3 Details of the supplier of the safety data sheet

Adshead Ratcliffe & Co. Ltd.
 Derby Road, Belper
 Derbyshire.
 DE56 1WJ
 +44 (0)1773 826661

e-mail address of person responsible for this SDS : SDSQueries@carlisleccm.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : National Poisons Information Service (NPIS)
 Tel: 0344 892 0111 (for healthcare professionals only)
 Website: <http://www.npis.org/>
 Members of Public in England, Scotland and Wales can contact NHS 111/NHS 24 by dialling 111. In Northern Ireland contact your local GP.

Supplier

Telephone number : +44 (0)1773 826661
 (Office hours: 8.30 - 17.00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Skin Irrit. 2, H315
 Eye Dam. 1, H318
 Skin Sens. 1, H317
 Aquatic Chronic 2, H411

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H318 - Causes serious eye damage.
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

: P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing vapour.
 P264 - Wash contaminated skin thoroughly after handling.

Response

: P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a POISON CENTER or doctor.

Storage

: Not applicable.

Disposal

: Not applicable.

Supplemental label elements

: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

: Not applicable.

Tactile warning of danger

: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

Other hazards which do not result in classification

: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

: Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	REACH #: 01-2119972320-44 EC: 500-191-5 CAS: 68082-29-1	≥25 - ≤50	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 2, H411	[1]
barium sulfate	EC: 231-784-4 CAS: 7727-43-7	≥10 - ≤25	Not classified.	[2]
Terphenyl, hydrogenated	REACH #: 01-2119488183-33 EC: 262-967-7 CAS: 61788-32-7	≤10	Aquatic Chronic 2, H411	[1] [2] [3]

SECTION 3: Composition/information on ingredients

Amines, polyethylenepoly-, triethylenetetramine fraction	REACH #: 01-2119487919-13 EC: 292-588-2 CAS: 90640-67-8	≤3	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
Quartz	EC: 238-878-4 CAS: 14808-60-7	≤0.3	STOT RE 1, H372 See Section 16 for the full text of the H statements declared above.	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for vPvB

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

SECTION 6: Accidental release measures

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Small spill : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E2	200 tonne	500 tonne

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
barium sulfate	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 4 mg/m ³ 8 hours. Form: respirable dust
Terphenyl, hydrogenated	TWA: 10 mg/m ³ 8 hours. Form: inhalable dust EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 48 mg/m ³ 15 minutes. STEL: 5 ppm 15 minutes. TWA: 19 mg/m ³ 8 hours.
Quartz	TWA: 2 ppm 8 hours. EH40/2005 WELs (United Kingdom (UK), 1/2020). [silica, respirable crystalline respirable fraction] TWA: 0.1 mg/m ³ 8 hours. Form: Respirable fraction

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	DNEL	Long term Oral	0.56 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.56 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.97 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1.1 mg/kg bw/day	Workers	Systemic
barium sulfate	DNEL	Long term Inhalation	3.9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	10 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	10 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	10 mg/m ³	Workers	Systemic
Terphenyl, hydrogenated	DNEL	Long term Oral	13000 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	74 µg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.222 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.358 mg/m ³	General population	Systemic
Amines, polyethylenepoly-, triethylenetetramine fraction	DNEL	Long term Dermal	0.622 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.01 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0.096 mg/m ³	General population	Systemic
	DNEL	Long term Oral	0.14 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.54 mg/m ³	Workers	Systemic

PNECs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Compartment Detail	Value	Method Detail
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Fresh water	0.004 mg/l	-
	Fresh water	0.043 mg/l	-
	Marine water	0.0004 mg/l	-
	Sewage Treatment Plant	3.84 mg/l	-
	Fresh water sediment	434.02 mg/kg dwt	-
	Marine water sediment	43.4 mg/kg dwt	-
	Soil	86.78 mg/kg dwt	-
barium sulfate	Fresh water	115 µg/l	-
	Sewage Treatment Plant	62.2 mg/l	-
	Fresh water sediment	600.4 mg/kg dwt	-
	Soil	207.7 mg/kg dwt	-
Terphenyl, hydrogenated	Fresh water	2 µg/l	-
	Fresh water	13.4 µg/l	-
	Marine water	0.2 µg/l	-
	Sewage Treatment Plant	10.3 mg/l	-
	Fresh water sediment	63.2 mg/kg	-
	Marine water sediment	6.32 mg/kg	-
	Soil	12.6 mg/kg	-
Amines, polyethylenepoly-, triethylenetetramine fraction	Secondary Poisoning	2.22 mg/kg	-
	Fresh water	0.027 mg/l	-
	Fresh water	0.2 mg/l	-
	Marine water	0.0027 mg/l	-
	Marine water	0.02 mg/l	-
	Sewage Treatment Plant	0.13 mg/l	-
	Fresh water sediment	8.572 mg/kg dwt	-
	Marine water sediment	0.857 mg/kg dwt	-
	Soil	1.25 mg/kg dwt	-

8.2 Exposure controls

Appropriate engineering controls

- : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

SECTION 8: Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties**Appearance**

- Physical state** : Solid. [Paste.]
- Colour** : Buff
- Odour** : Slight
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not applicable.
- Flash point** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- pH** : Not available.
- Viscosity** : Dynamic: 1200000 to 1500000 mPa·s
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Vapour pressure** : Not available.
- Relative density** : 1.1
- Vapour density** : Not applicable.
- Explosive properties** : Not available.
- Oxidising properties** : Not available.
- Particle characteristics**
- Median particle size** : Not available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : heat
- 10.5 Incompatible materials** : strong alkalis
strong acids
Strong oxidising materials
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Decomposition products may include the following materials:
Toxic gases
carbon oxides (CO, CO₂)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	LD50 Dermal	Rat	>2000 mg/kg	-
Terphenyl, hydrogenated Amines, polyethylenepoly-, triethylenetetramine fraction	LD50 Oral	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	17500 mg/kg	-
	LD50 Dermal	Rabbit	1465.4 mg/kg	-
	LD50 Oral	Rat	1716 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
ARBOKOL® SECURE Base	153419.8	131014.8	N/A	N/A	N/A
Terphenyl, hydrogenated	17500	N/A	N/A	N/A	N/A
Amines, polyethylenepoly-, triethylenetetramine fraction	1716	1465.4	N/A	N/A	N/A

Irritation/Corrosion

Conclusion/Summary

- Skin** : Skin Irrit. 2
Eyes : Eye Dam. 1

Sensitisation

Conclusion/Summary

- Skin** : Skin Sens. 1
Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Conclusion/Summary

: Based on available data, the classification criteria are not met.

Carcinogenicity

SECTION 11: Toxicological information

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Quartz	Category 1	-	-

Aspiration hazard

Not available.

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : May cause skin sensitisation.
Causes skin irritation.
Causes serious eye damage.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

ARBOKOL® SECURE Base

SECTION 11: Toxicological information**Mutagenicity** : No known significant effects or critical hazards.**Reproductive toxicity** : No known significant effects or critical hazards.**Other information** : Not available.**SECTION 12: Ecological information****12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Acute EC50 4.34 mg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	72 hours
barium sulfate	Acute EC50 7.07 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 7.07 mg/l Fresh water	Fish - <i>Brachydanio rerio</i>	96 hours
	Chronic NOEC 0.5 mg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	72 hours
	Acute EC50 634 mg/l Fresh water	Crustaceans - Ostracod - <i>Cypris subglobosa</i>	48 hours
Terphenyl, hydrogenated	Acute EC50 32 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i>	48 hours
	Acute EC50 >1.34 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
Amines, polyethylenepoly-, triethylenetetramine fraction	Acute LC50 >1000 mg/l Fresh water	Fish	96 hours
	Acute EC50 20 mg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	72 hours
	Acute EC50 31.1 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 330 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Chronic EC10 1.34 mg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	72 hours
	Chronic EC10 1.9 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days

Conclusion/Summary : Aquatic Chronic 2**12.2 Persistence and degradability****Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	-	-	Not readily
Terphenyl, hydrogenated	Marine water 67 days, 20°C	-	-
Amines, polyethylenepoly-, triethylenetetramine fraction	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Terphenyl, hydrogenated	-	5200	High
Amines, polyethylenepoly-, triethylenetetramine fraction	-2.65	-	Low

12.4 Mobility in soil**Soil/water partition coefficient (K_{oc})** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment**

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	No	N/A	N/A	No	N/A	N/A	N/A
Terphenyl, hydrogenated	No	Yes	Yes	No	SVHC (Candidate)	Specified	Specified
Amines, polyethylenepoly-, triethylenetetramine fraction	No	N/A	N/A	No	N/A	N/A	N/A

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

Waste catalogue

Waste code	Waste designation
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN3077	UN3077	UN3077	UN3077
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine, Terphenyl, hydrogenated)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine, Terphenyl, hydrogenated)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine, Terphenyl, hydrogenated)	Environmentally hazardous substance, solid, n.o.s. (Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine, Terphenyl, hydrogenated)

ARBOKOL® SECURE Base

SECTION 14: Transport information

14.3 Transport hazard class(es)	9 	9 	9 	9
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Hazard identification number 90

Limited quantity 5 kg

Special provisions 274, 335, 601, 375

Tunnel code (-)

ADN

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Special provisions 274, 335, 375, 601

IMDG

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Emergency schedules F-A, S-F

Special provisions 274, 335, 966, 967, 969

IATA

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Quantity limitation Passenger and Cargo Aircraft: 400 kg. Packaging instructions:

956. Cargo Aircraft Only: 400 kg. Packaging instructions: 956. Limited Quantities -

Passenger Aircraft: 30 kg. Packaging instructions: Y956.

Special provisions A97, A158, A179, A197, A215

14.6 Special precautions for user

: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments

: Not available.

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
vPvB	terphenyl, hydrogenated	Candidate	-	6/27/2018

Ozone depleting substances

Not listed.

SECTION 15: Regulatory information**Prior Informed Consent (PIC)**

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria**Category**

E2

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
Quartz (SiO ₂)	UK Occupational Exposure Limits EH40 - WEL	silica, respirable crystalline respirable fraction	Carc.	-

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

International regulations**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.
Canada : Not determined.
China : Not determined.
Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.
Japan : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.
New Zealand : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : All components are listed or exempted.

SECTION 15: Regulatory information

Thailand	: All components are listed or exempted.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: All components are listed or exempted.
15.2 Chemical safety assessment	: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms	: ATE = Acute Toxicity Estimate GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = GB CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

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Notice to reader

SECTION 16: Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.