

SAFETY DATA SHEET

ARBO

ARBOKOL® 682 Base

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

1.1 Product identifier

Product name : ARBOKOL® 682 Base
Product description : Base component of: Two-component, epoxy-based adhesive
Other means of identification : ARBOKOL® 682H Base, ARBOKOL® 682M Base

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 Corr. 1C, H314
 Eye Dam. 1, H318
 Aquatic Chronic 3, H412

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 :

H314 - Causes severe skin burns and eye damage.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention :

P280 - Wear protective gloves, protective clothing and eye or face protection.
P260 - Do not breathe vapour.
P264 - Wash contaminated skin thoroughly after handling.

Response :

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 - 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 does not contain any substances that are assessed to be a PBT or a vPvB.

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
Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages Talc	CAS: 68611-50-7 EC: 238-877-9 CAS: 14807-96-6	≥50 - ≤75 ≥10 - ≤25	Aquatic Chronic 3, H412 Not classified.	[1] [2]
2,4,6-tris(dimethylaminomethyl) phenol	REACH #: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2 Index: 603-069-00-0	≤10	Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318	[1]

SECTION 3: Composition/information on ingredients

silicon dioxide	REACH #: 01-2119379499-16 EC: 231-545-4 CAS: 7631-86-9	≤3	Not classified.	[2]
ethanediol	REACH #: 01-2119456816-28 EC: 203-473-3 CAS: 107-21-1 Index: 603-027-00-1	<1	Acute Tox. 4, H302 STOT RE 2, H373 (kidneys)	[1] [2]
acetic acid	REACH #: 01-2119475328-30 EC: 200-580-7 CAS: 64-19-7 Index: 607-002-00-6	<1	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318	[1] [2]
carbon black, non respirable	EC: 215-609-9 CAS: 1333-86-4	≤0.1	Not classified. See Section 16 for the full text of the H statements declared above.	[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

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. Flush contaminated skin with plenty of 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. 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.

SECTION 4: First aid measures

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.

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 : Corrosive to the respiratory tract.
 coughing

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 harmful 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
 halogenated compounds
 metal oxide/oxides
 Formaldehyde.
 Ammonia
 amines
 hydrogen sulphide
 Sulphur dioxide

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".

- 6.2 Environmental precautions** : Avoid dispersal of spilt 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.

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). 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.

7.3 Specific end use(s)

- Recommendations** : Not available.

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SECTION 7: Handling and storage

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
alc silicon dioxide	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 1 mg/m ³ 8 hours. Form: respirable dust
ethanediol	EH40/2005 WELs (United Kingdom (UK), 1/2020). [silica, amorphous inhalable dust/respirable dust] TWA: 2.4 mg/m ³ 8 hours. Form: respirable dust TWA: 6 mg/m ³ 8 hours. Form: inhalable dust
acetic acid	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. TWA: 10 mg/m ³ 8 hours. Form: Particulate TWA: 20 ppm 8 hours. Form: Vapour STEL: 40 ppm 15 minutes. Form: Vapour TWA: 52 mg/m ³ 8 hours. Form: Vapour STEL: 104 mg/m ³ 15 minutes. Form: Vapour
carbon black, non respirable	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 50 mg/m ³ 15 minutes. STEL: 20 ppm 15 minutes. TWA: 25 mg/m ³ 8 hours. TWA: 10 ppm 8 hours.
	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 7 mg/m ³ 15 minutes. TWA: 3.5 mg/m ³ 8 hours.

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
alc	DNEL	Short term Inhalation	1.08 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	1.08 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	1.8 mg/m ³	General population	Local
	DNEL	Long term Inhalation	1.8 mg/m ³	General population	Local
	DNEL	Short term Inhalation	2.16 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	2.16 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	2.27 mg/cm ²	General population	Local
	DNEL	Short term Inhalation	3.6 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	3.6 mg/m ³	Workers	Local
	DNEL	Long term Dermal	4.54 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	21.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	43.2 mg/kg bw/day	Workers	Systemic

SECTION 8: Exposure controls/personal protection

2,4,6-tris(dimethylaminomethyl) phenol	DNEL	Short term Oral	160 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	160 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.075 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.075 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.075 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0.13 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	0.13 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.15 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.53 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	0.6 mg/kg bw/day	Workers	Systemic
ethanediol	DNEL	Short term Inhalation	2.1 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7 mg/m ³	General population	Local
	DNEL	Long term Inhalation	35 mg/m ³	Workers	Local
	DNEL	Long term Dermal	53 mg/kg bw/day	General population	Systemic
acetic acid	DNEL	Long term Dermal	106 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	25 mg/m ³	General population	Local
	DNEL	Long term Inhalation	25 mg/m ³	General population	Local
	DNEL	Short term Inhalation	25 mg/m ³	Workers	Local
carbon black, non respirable	DNEL	Long term Inhalation	25 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0.06 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	1 mg/m ³	Workers	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
2,4,6-tris(dimethylaminomethyl)phenol	Fresh water	0.046 mg/l	-
	Fresh water	0.46 mg/l	-
	Marine water	0.005 mg/l	-
	Marine water	0.046 mg/l	-
	Sewage Treatment Plant	0.2 mg/l	-
	Fresh water sediment	0.262 mg/l	-
	Marine water sediment	0.026 mg/kg	-
	Soil	0.025 mg/kg	-

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

SECTION 8: Exposure controls/personal protection

- 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. 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**
- 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** : Black.
- Odour** : Mercaptan
- 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: 750000 to 1000000 mPa·s
- Solubility in water** : Not available.

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SECTION 9: Physical and chemical properties**Partition coefficient: n-octanol/ water** : Not applicable.**Vapour pressure** : Not available.**Relative density** : 1.25**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** : Keep away from heat and direct sunlight.**10.5 Incompatible materials** : strong acids
strong alkalis
Strong oxidising materials
copper
Aluminium.
zinc
peroxides
hypochlorites**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:
Sulphur dioxide
Hydrogen sulfide
Aldehyde.
Formaldehyde
nitric acid
nitrogen oxides
Ammonia
Corrosive gas.
Toxic gases**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages	LD50 Dermal	Rat	>7800 mg/kg	-
2,4,6-tris (dimethylaminomethyl) phenol	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rat	1280 mg/kg	-

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SECTION 11: Toxicological information

ethanediol	LD50 Oral	Rat	1200 mg/kg	-
	LD50 Oral	Rat	4700 mg/kg	-
acetic acid	LC50 Inhalation Vapour	Rat	11000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	1060 mg/kg	-
carbon black, non respirable	LD50 Oral	Rat	3310 mg/kg	-
	LD50 Oral	Rat	>15400 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® 682 Base	19512.2	N/A	N/A	N/A	N/A
2,4,6-tris(dimethylaminomethyl)phenol	1200	N/A	N/A	N/A	N/A
ethanediol	500	N/A	N/A	N/A	N/A
acetic acid	3310	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Calc	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
2,4,6-tris(dimethylaminomethyl)phenol	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Skin - Mild irritant	Rat	-	0.025 MI	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Severe irritant	Rat	-	0.25 MI	-
silicon dioxide	Eyes - Mild irritant	Rabbit	-	24 hours 25 mg	-
	Eyes - Mild irritant	Rabbit	-	1 hours 100 mg	-
ethanediol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	6 hours 1440 mg	-
	Skin - Mild irritant	Rabbit	-	555 mg	-
acetic acid	Eyes - Mild irritant	Rabbit	-	0.5 minutes 5 mg	-
	Skin - Mild irritant	Human	-	24 hours 50 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Severe irritant	Rabbit	-	525 mg	-

Conclusion/Summary

Skin : Skin Corr. 1C

Eyes : Eye Dam. 1

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

Sensitisation

Conclusion/Summary

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

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

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.

SECTION 11: Toxicological information**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
ethanediol	Category 2	-	kidneys

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 severe burns.
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** : Corrosive to the respiratory tract.
 coughing
- 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** : Causes severe skin burns and 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 : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

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SECTION 11: Toxicological information**Other information** : Not available.**SECTION 12: Ecological information****12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages	Acute EC50 >20 mg/l Fresh water	Daphnia	48 hours
2,4,6-tris (dimethylaminomethyl) phenol	Acute EC50 46.7 mg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	72 hours
silicon dioxide	Acute EC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 >100 mg/l Fresh water	Fish - <i>Cyprinus carpio</i>	96 hours
	Chronic EC10 25.1 mg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	72 hours
	Acute EC50 2.2 g/L Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	48 hours
ethanediol	Chronic NOEC 12.5 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	21 days
	Acute LC50 6900000 µg/l Fresh water	Crustaceans - Water flea - <i>Ceriodaphnia dubia</i> - Neonate	48 hours
acetic acid	Acute LC50 41000 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 8050000 µg/l Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i>	96 hours
	Acute EC50 73400 µg/l Fresh water	Algae - Diatom - <i>Navicula seminulum</i>	96 hours
	Acute EC50 65000 µg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 32 mg/l Marine water	Crustaceans - Brine shrimp - <i>Artemia salina</i>	48 hours
carbon black, non respirable	Acute LC50 75000 µg/l Fresh water	Fish - Bluegill - <i>Lepomis macrochirus</i>	96 hours
	Acute EC50 37.563 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	48 hours

Conclusion/Summary : Aquatic Chronic 3**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
ethanediol	-	>90 % - Readily - 10 days	-	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Liquid polysulfide polymer. Mercaptan terminated liquid polymer of diethyleneoxymethane with Sx linkages	-	-	Not readily
2,4,6-tris (dimethylaminomethyl) phenol	-	-	Not readily
ethanediol	-	-	Readily

12.3 Bioaccumulative potential

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SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
2,4,6-tris (dimethylaminomethyl) phenol	0.219	-	Low
ethanediol	-1.36	-	Low
acetic acid	-0.17	3.16	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

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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	UN3263	UN3263	UN3263	UN3263
14.2 UN proper shipping name	CORROSIVE SOLID, BASIC, ORGANIC, N. O.S. (2,4,6-tris (dimethylaminomethyl) phenol)	CORROSIVE SOLID, BASIC, ORGANIC, N. O.S. (2,4,6-tris (dimethylaminomethyl) phenol)	CORROSIVE SOLID, BASIC, ORGANIC, N. O.S. (2,4,6-tris (dimethylaminomethyl) phenol)	Corrosive solid, basic, organic, n.o.s. (2,4,6-tris (dimethylaminomethyl) phenol)

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SECTION 14: Transport information

14.3 Transport hazard class(es)	8 	8 	8 	8 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	No.	No.	No.

Additional information

- ADR/RID** : **Hazard identification number** 80
Limited quantity 5 kg
Special provisions 274
Tunnel code (E)
- ADN** : **Special provisions** 274
- IMDG** : **Emergency schedules** F-A, S-B
Special provisions 223, 274
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 25 kg. Packaging instructions: 860. Cargo Aircraft Only: 100 kg. Packaging instructions: 864. Limited Quantities - Passenger Aircraft: 5 kg. Packaging instructions: Y845.
Special provisions A3, A803

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

None of the components are listed.

Ozone depleting substances

Not listed.

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 not controlled under the Seveso Directive.

EU regulations

SECTION 15: Regulatory information

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.

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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SECTION 16: Other information

Procedure used to derive the classification

Classification	Justification
Skin Corr. 1C, H314	Calculation method
Eye Dam. 1, H318	Calculation method
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications

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

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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.