



# admiral

## SAFETY DATA SHEET

### ADMIRAL No.10 CLEANER / SANITISER CONCENTRATE

According to Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures.

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

##### 1.1. Product identifier

Product name	ADMIRAL No.10 CLEANER / SANITISER CONCENTRATE
Product number	AD-1510/M
Internal identification	3204
Container size	2L

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

Identified uses	Detergent/Disinfectant. For professional use only. Disinfectants must be used responsibly in line with manufacturer's instructions.
Uses advised against	Not for direct contact with Food or Beverage stuffs. Not for oral consumption.

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

Supplier	Admiral Group of Companies Unit 2, Bardon 22 Industrial Estate, Coalville, Leicestershire, LE67 1TE Tel: +44 (0) 1530 278920 Fax: +44 (0) 1530 278930
Manufacturer	MERLIN CHEMICALS Unit 5, Passfield Mill Business Park, Liphook, Hampshire, GU30 7RR +44 (0)1428 751122 +44 (0)1428 751133 technical@merlinchemicals.co.uk

##### 1.4. Emergency telephone number

Emergency telephone	Out of Office Hours Emergency Information:- For accidents and spillages involving this product that pose a threat to the environment, or human health, or require immediate first aid advice call:- +44(0) 7050 265597. Note:- This number will not accept order queries or calls dealing with equipment breakdowns. This product is registered with the NPIS. UK Environment Agency 24hour Advisory Service 0800 807060. Irish Environmental Protection Agency 1890 335599 (This is a Lo Call Number)
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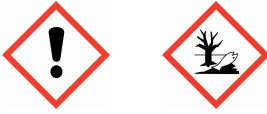
#### SECTION 2: Hazards identification

##### 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
Environmental hazards	Aquatic Acute 1 - H400 Aquatic Chronic 3 - H412

##### 2.2. Label elements

**ADMIRAL No.10 CLEANER / SANITISER CONCENTRATE****Hazard pictograms****Signal word**

Warning

**Hazard statements**

H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H400 Very toxic to aquatic life.  
 H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P273 Avoid release to the environment.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P313 Get medical advice/ attention.  
 P501 Dispose of contents/ container in accordance with national regulations.

**Detergent labelling**

< 5% amphoteric surfactants, < 5% cationic surfactants, < 5% EDTA and salts thereof, < 5% non-ionic surfactants

**2.3. Other hazards**

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

**SECTION 3: Composition/information on ingredients****3.2. Mixtures**

<b>ETHYLENEDIAMINETETRAACETIC ACID TETRASODIUM SALT</b>		<b>1&lt;5%</b>
CAS number: 64-02-8	EC number: 200-573-9	REACH registration number: 01-2119486762-27
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Met. Corr. 1 - H290	Xn;R20,R22. Xi;R41.	
Acute Tox. 4 - H302		
Acute Tox. 4 - H332		
Eye Dam. 1 - H318		
STOT RE 2 - H373		
<b>ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE</b>		<b>1-2%</b>
CAS number: 68424-85-1	EC number: 270-325-2	
M factor (Acute) = 10	M factor (Chronic) = 1	
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Met. Corr. 1 - H290	Xn;R21/22. C;R34. N;R50.	
Acute Tox. 4 - H302		
Skin Corr. 1B - H314		
Eye Dam. 1 - H318		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		

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<b>DIDECYL DIMETHYL AMMONIUM CHLORIDE</b>		<b>&lt;1%</b>
CAS number: 7173-51-5	EC number: 230-525-2	
M factor (Acute) = 10		
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Met. Corr. 1 - H290	Xn;R22. C;R34. N;R50.	
Acute Tox. 4 - H302		
Skin Corr. 1B - H314		
Eye Dam. 1 - H318		
Aquatic Acute 1 - H400		
<b>SODIUM HYDROXIDE</b>		<b>&lt;1%</b>
CAS number: 1310-73-2	EC number: 215-185-5	REACH registration number: 01-2119457892-27
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Met. Corr. 1 - H290	C;R35	
Skin Corr. 1A - H314		
Eye Dam. 1 - H318		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**Composition comments**      The Biocidally Active components of this product are supported in the Biocidal Products Regulation.

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>General information</b>	When it is safe to do so, remove victim immediately from source of exposure. However, consideration should be given as to whether moving the victim will cause further injury. For immediate First Aid advice in the UK, dial 111.
<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth thoroughly with water. Place unconscious person on the side in the recovery position and ensure breathing can take place. Get medical attention.
<b>Skin contact</b>	Remove contaminated clothing that is not stuck to the skin. Flush area with clean water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

<b>General information</b>	Neat product may cause irritation to skin and eyes. Dilute chemical may result in mild irritation to skin. Contact of dilute chemical with eyes should still be treated as outlined above.
<b>Inhalation</b>	Unlikely route of exposure. Inhalation of sprayed droplets may result in soreness of the throat, mouth and nose.
<b>Ingestion</b>	Unlikely route of exposure without deliberate abuse. If neat chemical is ingested, irritation of the mouth, throat and GI tract may occur. If dilute chemical is ingested some soreness of the mouth, throat and GI tract may occur.

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**Skin contact** Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Chemical burns are possible after prolonged contact. Use solutions may cause mild irritation, especially to open cuts and abrasions.

**Eye contact** May result in permanent eye damage.

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

**Notes for the doctor** Contains a blend of Chelating agents, Surfactants and Cationic Biocides in aqueous solution. Rinse well with water to neutral pH.

## SECTION 5: Firefighting measures

### **5.1. Extinguishing media**

**Suitable extinguishing media** The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire.

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

**Specific hazards** No unusual fire or explosion hazards noted. The product is non-combustible. On heating irritating fumes may be formed.

### **5.3. Advice for firefighters**

**Protective actions during firefighting** Protective clothing and respiratory protection should be worn when tackling fires involving this product. Control run-off water by containing and keeping it out of sewers and watercourses.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

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

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

### **6.2. Environmental precautions**

**Environmental precautions** Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Avoid or minimise the creation of any environmental contamination.

### **6.3. Methods and material for containment and cleaning up**

**Methods for cleaning up** Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

### **6.4. Reference to other sections**

**Reference to other sections** See sections 8, 12 & 13

## SECTION 7: Handling and storage

### **7.1. Precautions for safe handling**

**Usage precautions** Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist. Read and follow manufacturer's recommendations.

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

**Storage precautions** Keep container tightly closed. Keep only in the original container. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Store between 0 and 40 Degrees C. Store away from:- Chlorinated Detergents and Disinfectants.

### **7.3. Specific end use(s)**

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<b>Specific end use(s)</b>	Detergent/Disinfectant. Refer to Product Data sheet.
<b>Usage description</b>	This product is suitable for cleaning food process plants, it is not suitable for direct food contact.

**SECTION 8: Exposure controls/Personal protection****8.1. Control parameters****Occupational exposure limits****SODIUM HYDROXIDE**Short-term exposure limit (15-minute): WEL 2 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

**Ingredient comments**

Where an exposure level is quoted, a risk assessment should consider if there is a need to monitor the atmosphere of the working environment. Results should be compared against the WEL and/or DNEL information provided. Where a worker is exposed to levels approaching a limit, further exposure control measures should be considered to reduce exposure to the substance. DNEL and/or PNEC information is supplied by manufacturers of substances in accordance with REACH legislation (Regulation (EC) No 1907/2006), and is used to provide suitable risk reduction measures to limit exposure of the user of the substance to a non-hazardous level. If the measured level of exposure by a route divided by the DNEL for the route is greater than 1, then further exposure controls should be implemented as described in section 8.2. Where new information becomes available under REACH, this will be passed on as revisions to the Safety Data Sheet.

**ETHYLENEDIAMINETETRAACETIC ACID TETRASODIUM SALT (CAS: 64-02-8)**

**DNEL** Professional - Inhalation; Long term systemic effects: 1.5 mg/m<sup>3</sup>

**PNEC**

- Fresh water; 2.86 mg/l
- marine water; 0.286 mg/l
- Intermittent release; 1.56 mg/l
- Soil; 0.937 mg/kg, mg/kg dwt
- STP; 55.94 mg/kg

**CITRIC ACID (CAS: 5949-29-1)**

**PNEC**

- Fresh water; 0.44 mg/l
- marine water; 0.044 mg/l
- STP; >1000 mg/l
- Sediment (Freshwater); 34.6 mg/kg
- Sediment (Marinewater); 3.46 mg/kg
- Soil; 33.1 mg/kg

**SODIUM HYDROXIDE (CAS: 1310-73-2)**

**DNEL** Industry - Inhalation; Long term local effects: 1.0 mg/m<sup>3</sup>  
DNEL data for Professional users is not yet available, but it is assumed to be the same as for Industrial users.  
Industry - Dermal; Short term local effects: 2%

**PNEC** No information is available for PNEC data for Sodium Hydroxide

**8.2. Exposure controls**

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### Protective equipment



### Personal protection

The PPE indicated above is not a COSHH assessment. It represents PPE that should be considered during the manufacture, distribution, use and final disposal stages of this product's life cycle. It is the responsibility of employers to conduct a COSHH/risk assessment to determine appropriate PPE levels. The information given below should be used to support this assessment. Where possible replace manual processes with automated or closed processes to minimise contact with the product.

### Eye/face protection

The following protection should be worn: Chemical splash goggles. Refer to EN Standard 166 to select appropriate level of protection.

### Hand protection

Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC). The expected use of this product is such that gloves with a breakthrough time of >60 minutes should be regarded as sufficient. Gloves should be inspected regularly for damage and replaced when necessary. Refer to Standard EN 374 and EN 16523

### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination. Reference to EN 13832 and EN 943 is useful when selecting footwear and clothing.

### Hygiene measures

Promptly remove non-impervious clothing that has become contaminated, provided it is not adhered to the skin. Wash contaminated clothing before reuse.

### Respiratory protection

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Workplace Exposure Limit. In the case of dust or aerosol formation (eg spraying), or vapour from hot vessels, use respiratory protection with an approved filter (P2).

### Environmental exposure controls

Do not allow the substance to contaminate surface water/ground water. See points 6, 12 &13.

### General Health and Safety Measures.

The above requirements refer to the neat product. A 5% solution of this product would not be classified. However, we would recommend eye protection if there is a risk of splashing, also use of gloves. A full Risk Assessment should be carried out before handling any chemical(s). Risk Assessments should refer to COSHH, and any other relevant legislation or industry specific guidelines governing the use of chemicals. Alkyl Benzyl Dimethyl Ammonium Chloride has been linked to skin sensitisation by prolonged or repeated exposure. Use of gloves is recommended.

## SECTION 9: Physical and chemical properties

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

Appearance	Clear liquid.
Colour	Blue.
Odour	Slight.
Odour threshold	Not applicable.
pH	pH (concentrated solution): 9 - 10 pH (diluted solution): 7 - 8 @ 3%v/v
Melting point	Not applicable.
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.

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<b>Evaporation factor</b>	Not applicable.
<b>Flammability (solid, gas)</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.
<b>Relative density</b>	1.03 @20 Degrees C
<b>Bulk density</b>	Not applicable.
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient</b>	Not applicable. Not technically practical for mixtures.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition Temperature</b>	Not applicable.
<b>Viscosity</b>	Not determined.
<b>Explosive properties</b>	Not applicable.
<b>Explosive under the influence of a flame</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Not applicable. Contains no Oxidising Components.

**9.2. Other information**

<b>Refractive index</b>	Not applicable.
<b>Particle size</b>	Not applicable.
<b>Molecular weight</b>	Not applicable.
<b>Volatility</b>	Not applicable.
<b>Saturation concentration</b>	Not applicable.
<b>Critical temperature</b>	Not applicable.
<b>Volatile organic compound</b>	Not applicable.
<b>Explosive Properties</b>	Not Classified as Explosive
<b>Storage Temperature Range</b>	0 to + 40 Degrees C

**SECTION 10: Stability and reactivity****10.1. Reactivity**

<b>Reactivity</b>	Not expected to react when correctly stored and used. Mixing with other chemicals may produce unexpected reactions.
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**10.2. Chemical stability**

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. - See note 10.6.
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**10.3. Possibility of hazardous reactions**

<b>Possibility of hazardous reactions</b>	Refer to section 10.1.
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**10.4. Conditions to avoid**

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

### 10.5. Incompatible materials

**Materials to avoid** Do not mix with Hypochlorite based chemicals this could result in a hazardous reaction producing heat, CO<sub>2</sub> and O<sub>2</sub>.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. - See section 10.5.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**ATE oral (mg/kg)** 16,860.92

#### Acute toxicity - dermal

**ATE dermal (mg/kg)** 39,000.0

#### Acute toxicity - inhalation

**ATE inhalation (dusts/mists mg/l)** 39.47

#### Skin sensitisation

**Skin sensitisation** Alkyl Benzyl Dimethyl Ammonium Chloride has been linked to skin sensitisation by prolonged or repeated exposure. Use of gloves is recommended.

#### Carcinogenicity

**Carcinogenicity** The components of this formulation will not be systemically available in the body under normal conditions of handling. As a consequence it is not expected to cause cancer.

#### Reproductive toxicity

**Reproductive toxicity - fertility** The components of this formulation will not be systemically available in the body under normal conditions of use and handling. As a consequence it is not expected to be toxic to the reproductive system or developing foetus.

**General information** See section 4.2.

**Inhalation** Unlikely route of exposure. Inhalation of sprayed droplets may result in soreness of the throat, mouth and nose. - See section 4.2.

**Ingestion** Unlikely route of exposure without deliberate abuse. There may be soreness and redness of mouth and throat. A soapy taste may be reported. May cause irritation/discomfort to mucous membranes.

**Skin contact** Under normal conditions of use exposure time will be short and the likelihood of causing skin irritation will be very low. Prolonged or repeated contact of in use solutions with skin may cause redness, itching, irritation and eczema/chapping. Use solutions may cause mild irritation especially to open cuts and abrasions.

**Eye contact** May cause permanent eye injury.

## SECTION 12: Ecological information

**Ecotoxicity** This product is classified as very toxic to aquatic life, this refers to the neat product. Normal use is not expected to pose a risk.

### 12.1. Toxicity



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### Acute aquatic toxicity

#### **Acute toxicity - fish**

Normal use of diluted product is unlikely to pose a risk.

See note 12.0.

To the best of our current knowledge, the main ecotoxicological effect is due to the Alkyl Benzyl Dimethyl Ammonium Chloride and Didecyl Dimethyl Ammonium Chloride, for which the following data is available :-

Alkyl Benzyl Dimethyl Ammonium Chloride:-

The EC50/48h value for Daphnia is 0.03mg/l.

The EC50/96h value for Selenastrum capricornutum is 0.06mg/l.

The LC50/96h value for Rainbow Trout is 1.7 mg/l.

Behaviour in sewage processing plants - EC20 / 0.5hr = 10mg/l (Activated Sludge).

Didecyl Dimethyl Ammonium Chloride:-

The EC(50)/48hr Value for Daphnia magna is 0.062mg/l.

The LC(50)/96hr for fathead minnow is 0.19mg/l

Toxicity to bacteria in activated sewage sludge (EC50)/3hr = 11mg/l

### 12.2. Persistence and degradability

**Persistence and degradability** The surfactant(s) used in this preparation complies (comply) with the biodegradability criteria as laid down in the European Detergents Regulation No 648/2004 as amended.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** Not expected to bioaccumulate.

**Partition coefficient** Not applicable. Not technically practical for mixtures.

### 12.4. Mobility in soil

**Mobility** The product contains substances which are water soluble and may spread in water systems.

### 12.5. Results of PBT and vPvB assessment

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

### 12.6. Other adverse effects

**Other adverse effects** Not determined.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** When handling waste, the safety precautions applying to handling of the product should be considered. Do not mix with other chemicals.

**Disposal methods** Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Small volumes of use solution can be disposed of to sewers.

## SECTION 14: Transport information

### 14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

**ADMIRAL No.10 CLEANER / SANITISER CONCENTRATE****14.2. UN proper shipping name**

<b>Proper shipping name (ADR/RID)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE, DIDECYL DIMETHYL AMMONIUM CHLORIDE)
<b>Proper shipping name (IMDG)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE, DIDECYL DIMETHYL AMMONIUM CHLORIDE)
<b>Proper shipping name (ICAO)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE, DIDECYL DIMETHYL AMMONIUM CHLORIDE)
<b>Proper shipping name (ADN)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKYL BENZYL DIMETHYL AMMONIUM CHLORIDE, DIDECYL DIMETHYL AMMONIUM CHLORIDE)

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

<b>ADR/RID class</b>	9
<b>ADR/RID label</b>	9
<b>IMDG class</b>	9
<b>ICAO class/division</b>	9

**Transport labels****14.4. Packing group**

<b>ADR/RID packing group</b>	III
<b>IMDG packing group</b>	III
<b>ICAO packing group</b>	III

**14.5. Environmental hazards**

Environmentally hazardous substance/marine pollutant

**14.6. Special precautions for user**

<b>EmS</b>	F-A, S-F
<b>Emergency Action Code</b>	•3Z
<b>Hazard Identification Number (ADR/RID)</b>	90
<b>Tunnel restriction code</b>	(E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**ADMIRAL No.10 CLEANER / SANITISER CONCENTRATE**

**EU legislation** European Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures.  
This replaces Directive 67/548/EEC - Classification, Packaging and Labelling of Dangerous Substances and Regulation (EC) No. 453/2010 relating to the Classification, Packaging and Labelling of Dangerous Preparations. Also considered is the REACH Regulation (EC) No.1907/2006.

**15.2. Chemical safety assessment**

**Pcs Information** A suspension concentrate containing 2%wt/wt Alkyl Benzyl Dimethyl Ammonium Chloride and 0.5% Didecyl Dimethyl Ammonium Chloride. Authorisation Holder Holchem Laboratories Ltd.

**Pcs Number** PCS No:- 96777

No chemical safety assessment has been carried out.

**SECTION 16: Other information**

**Abbreviations and acronyms used in the safety data sheet** NPIS - National Poisons Information Service.  
vPvB - Very Persistent, Very bioaccumulative.  
PBT - Persistent, Bioaccumulative & Toxic.  
REACH - Registration, Evaluation, Authorisation & restriction of CHemicals (Regulation EC 1907/2006).  
DNEL - Derived No Effect Limit.  
PNEC - Predicted No Effect Concentration.  
COSHH - Control of Substances Hazardous to Health.  
LC50 - Lethal Concentration 50 - The environmental contamination at which 50% mortality is reached over a fixed time scale.  
LD50 - Lethal Dose 50 - The dose at which 50% of the tested group will die.  
Industry - Refers in section 8 to application of the substance in an industrial process.  
Professional - Refers in section 8 to application/use of the preparation/product in a skilled trade premises.

**General information** This document is a Safety Data Sheet, NOT a CoSHH assessment. It is the customer's responsibility to conduct a full CoSHH assessment, taking into account the information held within this document along with other local factors considered in a risk assessment. The Risk and Hazard statements listed below are the full text of abbreviations used in this document. They are not the final classification, for this refer to section 2. PCS No:- 96777

**Revision comments** Change to supplier address

**Revision date** 31/01/2019

**SDS number** 25139

**Risk phrases in full** R20 Harmful by inhalation.  
R21/22 Harmful in contact with skin and if swallowed.  
R22 Harmful if swallowed.  
R34 Causes burns.  
R36 Irritating to eyes.  
R41 Risk of serious damage to eyes.  
R50 Very toxic to aquatic organisms.

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### Hazard statements in full

H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

### REACH extended MSDS comments

REACH requires that persons handling chemicals should take the necessary risk management measures, in accordance with assessments from manufacturers and importers of chemical substances. The relevant recommendations must be passed along the supply chain. These assessments are generally reported in Exposure Scenarios. Where Exposure Scenarios have been provided for substances used in this product, the relevant information is incorporated into the safety data sheet.

### END OF SAFETY DATA SHEET

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.