# SANIBEV

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#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION **Product identifier** Trade name: SaniBev **Registration Number:** NRCS Registration: NRCS/8054/281852/1202 Product description: Didecyldimethyl Ammonium Chloride disinfectant. Other identifiers: **DDAC 2.4%** Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses: Disinfectant for the control of pathogens. Uses advised against: No specific uses advised against are identified. Details of the supplier of the safety data sheet Supplier Name: DF Trading CC Address: 110, Ravel Street - Mantervrede AH, Vanderbijlpark - 1911, South Africa Telephone: +27 16 987 7777 E-mail: info@dynafogafrica.co.za **Emergency telephone number** +27 086 155 5777 (Poison Information Helpline: 24 h) South Africa Health Emergency: **Customer Service:** +27 016 987 8787 (Dyna Fog Africa Sales and Technical Information: Monday - Friday, 08:00 - 17:00) 2. HAZARDS IDENTIFICATION Classification of the substance or mixture Health Hazards Skin corrosion/Skin Irritation. Category 2: H315: Causes skin irritation. Serious Eye Damage/Eye Irritation, Category 2: H319: Causes serious eye irritation. Label elements Hazard pictograms: Signal word: Warning Hazard statements: H315: Causes skin irritation. H319: Causes serious eye irritation. Prevention precautionary statements: P264 + 265: Wash hands and face thoroughly after handling. Do not touch eyes. P280: Wear protective gloves, protective clothing, eye protection and face protection. P302 + P352: IF ON SKIN: Wash with plenty of water and neutral soap. Response precautionary statement: P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P321: Specific treatment (see section First-aid measures on this label). P332 + P317: If skin irritation occurs: Get medical help. P337 + P317: If eye irritation persists: Get medical help. P362 + P364: Take off contaminated clothing and wash it before reuse. Storage precautionary: P403: Store in a well-ventilated place.

Disposal precautionary statement: P501: Dispose of contents and container in accordance with local regulations.

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according to Regulation (EC) No.1907/2006

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## 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Mixture

Description:

Dangerous components:

A mixture containing 2.4 % (w/v) of Didecyldimethylammonium Chloride.

Name	CAS No.	Classification according to Reg. (EC) 1272/2008 (CLP)	Hazard statement	% (w/v)
Didecyldimethyl ammonium chloride	7173-51-5	Acute Tox. 4 (Oral) Skin Corr. 1B	H302 H314	2.4
Isotridecanol, ethoxylated	69011-36-5	Aquatic Acute 1 Aquatic Chronic 3	H400; M=1 H412;	< 2

Additional information:

Values are not product specifications. Ingredients not identified are proprietary or do not contribute to the classification. For the full wording of abbreviations and hazard statements, refer to section 16.

## 4. FIRST-AID MEASURES

## Description of first aid measures

General advice:	If medical advice is needed, have the product container or label at hand. If symptoms develop or
	persist get medical help.
First-aid responders:	First-aid responders should pay attention to self-protection and use the recommended personal protective equipment when the potential for exposure exists (refer to section 8).
After inhalation:	If vapours or mists have been inhaled, move the person to fresh air, away from the immediate source of exposure. Loosen any tight clothing, if worn. Keep the person warm, at rest and under observation. If the person is not breathing, call an ambulance, then give artificial respiration. If breathing is difficult or irregular, administer oxygen.
After skin contact:	In case of contact with skin, remove and isolate contaminated clothing and shoes. Rinse affected areas gently and thoroughly with neutral, non-abrasive soap and large amounts of running water. Clean contaminated clothing and shoes before reuse. If skin irritation develops or persists, get medical help.
After eye contact:	In case of contact with eyes, rinse cautiously with large amounts of running water for at least 20 minutes, while holding eyelids apart. Remove contact lenses, if presented and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
After ingestion:	If the product has been swallowed, rinse the mouth. Do not induce vomiting, unless directed to do so by the poison center or doctor. Do not leave the person unattended. If vomiting occurs, have the person lean forward. Never give anything by mouth to an unconscious person.

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

The effects of exposure (inhalation, skin contact or ingestion) to the substance may be delayed. Exposure can lead to irritation, burning, eye pain, conjunctivitis, swelling of the eye and swelling of the eyelid. Prolonged skin contact may cause irritation, burning, rash, itching and blistering.

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

There is no specific antidote available. Treat symptomatically and supportively.

## 5. FIREFIGHTING MEASURES

#### **Extinguishing media**

Suitable extinguishing media: Unsuitable extinguishing media: Fine sprays, carbon dioxide (CO2), alcohol-resistant foam and dry chemical powder. Water jets.

### Special hazards arising from the substance or mixture

May produce nitrogen oxides, ammonia, hydrogen chloride and carbon dioxide on combustion.

### Advice for firefighters

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Protective equipment: Firefighters and other personnel who may be exposed should wear positive pressure self-contained breathing apparatus (SCBA) in combination with fire kits, firefighter gloves and firefighter footwear, especially when fighting a large fire. Protective actions: Do not breathe fumes or vapours. Evacuate the surrounding area and keep unnecessary and unprotected personnel away. Ventilate confined areas before entering. Contain the fire if properly trained and equipped. Use extinguishing measures that are appropriate to the type of fire, local circumstances and surrounding environment. Fight fire from a safe distance, from an upwind, uphill and/or upstream position. Water spray may be used to cool unopened containers exposed to heat but avoid water coming in contact with the product. Remove undamaged containers from the site if it is safe to do so. If a leak or spill has not ignited, use water spray to disperse vapours and to protect people stopping the leak. Contain fire control materials for later disposal and avoid their release to the aquatic environment, keeping them out of sewers, watercourses and drinking water supplies. If risk of water pollution occurs, notify appropriate authorities. Clean all contaminated clothing before re-use. If contaminated clothing cannot be adequately decontaminated, dispose of as hazardous waste. Emergency Action Code (EAC): 2X

## 6. ACCIDENTAL RELEASE MEASURES

	ve equipment, and emergency procedures
Personal precautions:	Avoid contact with skin and eyes. Avoid inhalation of vapours and mists. Do not toucl contaminated surfaces or walk into spilt material.
Non-emergency personnel:	Do not attempt to act without training. Keep unnecessary and unprotected personne away. Notify emergency responders and leave the area.
Emergency responders:	Keep unnecessary and unprotected personnel away. Remove all ignition sources Provide adequate ventilation, especially in confined areas. Wear protective gloves protective clothing, eye protection, face protection and respiratory protective equipment Suitable fabrics include impervious cotton, cotton blends and PVC.
Environmental precautions	
Application:	Do not apply directly to water, or to areas where surface water is present. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. The use of this chemical in areas where soils are permeable, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.
Spillages:	Prevent spilled material from entering waterway and sewer systems. Collect and dispose of dyke materials (e.g. dry sand, containment oil, etc.) in accordance with loca regulations. Notify appropriate authorities immediately if large spillages have contaminated surface water, drains, watercourses, sewer systems, or groundwaters.
Methods and materials for con	tainment and cleaning up
Containment:	For large spills, suppress vapours, or mists with a water spray jet. If it is safe to do so prevent further leakage or spillage by stopping the flow of the product. To prevent the product from spreading over a wide area or into the environment, seal surrounding drains and contain the leakage or spillage using inert materials. If dyked material can be recovered, store it in a sealed waste container for subsequent disposal. Labe containers containing hazardous waste and materials employed in the cleanup or releases. Remove containers from the area as soon as possible. Clean contaminated objects and floors thoroughly, observing environmental regulations. Local authorities should be advised if significant spillages cannot be contained.
Cleaning-up:	Soak up small spillages with inert absorbent material (e.g. cloth, fleece, dry sand sawdust, etc.) immediately. Clean the surface thoroughly to remove residual contamination. Never reuse or return spills to original containers. Collect, store, and dispose of contaminated materials properly, as they may pose the same hazard as this chemical.

#### Reference to other sections

For information regarding safe handling, refer to section 7. For information regarding individual protection measures, refer to section 8. For information regarding waste disposal, refer to section 13.

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# 7. HANDLING AND STORAGE

Precautions for safe handling	
Recommendations:	Do not handle until all safety precautions have been put in place. Wear protective gloves, protective clothing, eye protection, face protection and respiratory protective equipment. Avoid contact with skin and eyes. Avoid inhalation of vapours and mists. Handle and open containers with care to avoid spills, waste, and release to the environment. Keep containers tightly closed when not in use. Do not reuse empty containers. Applicators must refer to the directions of use on the product's label. For further advice, contact the registration holder.
General hygienic measures:	Do not eat, drink or smoke whilst handling this product. Wash hands and face immediately after handling this product and before eating, drinking, smoking, or using the toilet. Remove clothing and personal protective clothing equipment before leaving the working area.
Conditions for safe storage, inc	luding any incompatibilities
Storage conditions:	Store in a cool, dry and well-ventilated place. Keep in the original labelled container. Keep containers upright and tightly closed. Prevent containers from freezing and from physical damage. Keep out of reach of unauthorized persons, children, or animals. Store in such a manner as to prevent cross-contamination. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.
Conditions to avoid:	Do not store under direct sunlight or close to heat. Do not store close to incompatible materials, food, animal feeding stuff, fertilizers, pharmaceuticals, cosmetics, or water supplies.
Packaging materials: Incompatible substances: Further information:	High-density polyethylene (HDPE) Strong oxidizing agents, strong reducing agents and anionic detergents. Refer to local regulations to comply with quantity limits of hazardous chemicals under storage.
Specific end uses(s)	
General disinfection of bacteria:	Enterococcus hirae, Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus, Salmonella tranaroa.
General disinfection of fungus:	Aspergillus brasiliensis, Candida albicans.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions. Comply with occupational safety, environmental, fire and other applicable local regulations.

### **Control parameters**

Legal basis	Components	CAS-No.	Control parameters
EFSA	Didecyldimethylammonium Chloride	7173-51-5	ADI: 0.1 mg/kg bw/day
	Isotridecanol, ethoxylated	69011-36-5	ADI: not evaluated
REACH	Didecyldimethylammonium Chloride	7173-51-5	DNEL (workers, inhalation and dermal) - systemic effects, long and short term: No hazard identified DNEL (workers, inhalation and dermal) - local effects, long and short term: Medium hazard (no threshold derived) DNEL (workers, eye): Medium hazard (no threshold derived) DNEL(general population, inhalation, dermal, oral and eye) – systemic and local effects, long and short term: No hazard identified
	Isotridecanol, ethoxylated	69011-36-5	DNEL (workers, inhalation) - systemic effects, long term: 37 mg/m <sup>3</sup> DNEL (workers and general population, inhalation) - systemic effects, short term: No hazard identified



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DNEL (workers and general population, inhalation) - local
effects, long and short term: No hazard identified
DNEL (workers, dermal) - systemic effects, long term:
263 mg/kg bw/day
DNEL (workers and general population, dermal) -
systemic effects, short term: no hazard identified
DNEL (workers and general population, dermal) - local
effects, long and short term: No hazard identified
DNEL (workers and general population, eye): no hazard
identified.
DNEL (general population, inhalation) - systemic effects,
long term: 6.53 mg/m <sup>3</sup>
DNEL (general population, dermal) - systemic effects,
long term: 93.8 mg/kg bw/day
DNEL (general population, oral) – systemic effects, long
term: 2.5 mg/kd bw/day.
DNEL (general population, oral) – systemic effects, long
term: No hazard identified.

Additional information: For the full wording of abbreviations, refer to section 16. Monitoring of the concentration of substances in the workplace may be required to confirm compliance with OEL and the adequacy of exposure controls.

### **Exposure controls**

### Appropriate engineering controls

Eyewash stations should be available in the vicinity of use or handling. Provide adequate ventilation or other engineering controls to keep the airborne concentrations of vapours and mist below the applicable workplace exposure limits indicated above, especially in confined areas.

## Individual protection measures

General hygienic measures:	Do not eat, drink or smoke whilst handling this product. Wash hands and face immediately after handling this product. Use appropriate degowning techniques to remove potentially contaminated clothing. Wash contaminated clothing and personal protective equipment before reuse. Contaminated work clothing should not be allowed out of the workplace. Dispose of clothing and other absorbent materials that have been drenched or heavily contaminated with this mixture in accordance with local regulations.
Eye/face protection:	Wear tight-fitting, chemical splash goggles, face shield or other full-face protection to prevent eye and face contact with vapours, mists or splashes.
Hand protection:	Wear chemical-resistant, impervious gloves with a minimum thickness of 5 mm. Nitrile rubber gloves may be used.
Respiratory protection:	Where exposure through inhalation may occur, wear a full-face mask, half mask or quarter mask respirators with replaceable filter cartridges. N95, R95, or P95 filters may be used.
Body protection:	Wear appropriate chemical-resistant overalls, footwear, and socks. Additional body garments should be used based on the task being performed, e.g. PVC rain suites for chemical loading, off-loading, or dilution.

### Environmental exposure controls

Keep containers tightly closed when not in use. Avoid release to the environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties		
Physical state:	Liquid, homogenous	
Colour:	Colourless	
Odour:	Slight bitter smell	
Melting point/freezing point:	Didecyldimethylammonium Chloride: 94 - 205 °C at 101.3 kPa	
Boiling point/boiling range:	Not available	

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Flammability: Ignition temperature: Explosive properties: Explosion limits: Flash point: Auto-ignition temperature: Decomposition temperature: pH-value: Viscosity: Solubility in/miscibility with water: Segregation coefficient (n-octanol/water): Vapor pressure: Density: Vapour density:	Combustible Not available Not applicable Not applicable Didecyldimethylammonium Chloride: 26.4 °C at 103.6 kPa Didecyldimethylammonium Chloride: 350 °C at 104.7 kPa Didecyldimethylammonium Chloride: 180 °C pH 5 - 8 at 20 °C (undiluted) Not available Didecyldimethylammonium Chloride:: 390 - 650 mg/L at 20 °C and pH 7 Kowlog P = - 0.41 - 2.59 at 20 °C and pH 7 Didecyldimethylammonium Chloride:: 0.001 – 0.006 Pa at 20 - 25 °C Didecyldimethylammonium Chloride:: 0.870 - 0.909 at 20 °C
Other information Surface tension:	Not available Didecyldimethylammonium Chloride: 25.82 - 27 mN/m at 1 g/L and 20 °C
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## 10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical stability:	Chemically stable under standard use and storage conditions.
Possibility of hazardous reactions:	May react with strong oxidizing agents, strong reducing agents and anionic detergents.
Conditions to avoid:	Excessive heating.
Incompatible materials:	Strong oxidizing agents, strong reducing agents and anionic detergents.
Hazardous decomposition products:	May produce nitrogen oxides, ammonia, hydrogen chloride and carbon dioxide on combustion.

# **11. TOXICOLOGICAL INFORMATION**

### Information on toxicological effects

Didecyldimethylammonium Chlorid	e
Acute oral:	 LD50 - rat: 238 mg/kg bw
Acute dermal:	LD50 - rat: 3342 mg/kg bw
Acute inhalation:	No data available
Skin corrosion/skin irritation:	Rabbit - Adverse effect observed (corrosive)
Serious eye damage/eye irritation:	Rabbit - No adverse effect observed (not irritating)
Respiratory irritation/corrosion:	No data available
Skin sensitization:	No adverse effect observed (not sensitising)
Germ cell mutagenicity:	Salmonella typhimurium: No adverse effect observed (non-mutagenic)
Carcinogenicity:	NOAEL oral, chronic - rat 55.4 mg/kg bw/day
Reproductive toxicity:	NOAEL fertility, sub-acute - rat: 30 mg/kg bw/day
	NOAEL developmental, sub-acute - rat: 0.8 mg/kg bw/day
STOT – single exposure:	No data available
STOT – repeated exposure:	NOAEL oral, chronic - dog: 10 mg/kg/day
Aspiration hazard:	No data available
Isotridecanol, ethoxylated	1050 rot > 2000 mg/kg but
Acute oral:	LD50 - rat: > 2000 mg/kg bw
Acute dermal: Acute inhalation:	LD50 - rat: > 2000 mg/kg bw No data available
Skin corrosion/skin irritation:	
	Rabbit: No adverse effect observed (not irritating) Rabbit: No adverse effect observed (not irritating)
Serious eye damage/eye irritation: Respiratory irritation/corrosion:	No data available
Skin sensitization:	Guinea pig: No adverse effect observed (not sensitising)
Germ cell mutagenicity:	Peripheral human lymphocytes: No adverse effect observed (non-mutagenic)
Carcinogenicity:	No data available
Reproductive toxicity:	NOAEL fertility, subacute - rat: 500 mg/kg bw/day
	NOAEL developmental, subacute - rat: 750 mg/kg bw/day

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STOT – single exposure: STOT – repeated exposure: Aspiration hazard: NOAEL oral, sub chronic - rat: 500 mg/kg bw/day No data available No data available

Information on other hazards

Endocrine-disrupting properties:

Substances of the mixture are not identified as having endocrine-disrupting properties.

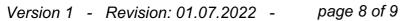
## 12. ECOLOGICAL INFORMATION

### Toxicity

Didecyldimethylammonium Chloride LC50 (96h) - Danio rerio (zebra fish): 0.49 mg/L Fish: Aquatic invertebrates: EC50 (48h) - Daphnia magna (water flea): 0.029 mg/L EC50 (96h) - Pseudokirchneriella subcapitata (green algae): 0.062 mg/L Algae and cyanobacteria: Earthworms: EC50 (28 days) - Eisenia fetida (manure warm): 509 mg/kg soil Birds No data available. No data available. Bees: Isotridecanol, ethoxylated LC50 (96h) - Danio rerio (zebra fish): 1.1 mg/L Fish: Aquatic invertebrates: EC50 (48h) - Daphnia magna (water flea): 0.544 mg/L Algae and cyanobacteria: EC50 (72h) - Desmodesmus subspicatus (green algae): 3.4 mg/L Earthworms: NOEC (56 days) - Eisenia fetida (manure warm): 125 mg/kg soil No data available. Rirds. No data available. Bees: Persistence and degradability Didecyldimethylammonium Chloride Hydrolysis: Half-life: 1 year at 20 °C Readily biodegradable in freshwater Biodegradation in water: Biodegradation in water sediments: Half-life: 6.933 months at 12 °C Half-life: 20.8 days at 12 °C Biodegradation in soil: Adsorption/desorption: Koc: 562314 at 20 °C Henry's law constant: H: 0 Pa m3/mol at 20 °C Isotridecanol, ethoxylated Hydrolysis: No data available Biodegradation in water: Readily biodegradable Biodegradation in water sediments: No data available Biodegradation in soil: No data available Koc: 441.7 at 20 °C Adsorption/desorption: Henry's law constant: No data available **Bioaccumulative potential** Didecyldimethylammonium Chloride Segregation coefficient (n-octanol/water): Log Kow: 2.8 at 20 °C **Bioconcentration factor:** BCF – aquatic species: > 2000 Isotridecanol, ethoxylated Segregation coefficient (n-octanol/water): Log Kow: 4.73 at 25 °C **Bioconcentration factor:** No data available Mobility in soil Didecyldimethylammonium chloride has little or no potential for mobility in soil and should not pose an environmental risk for contamination of groundwater. No mobility studies are available for Isotridecanol, ethoxylated.

## 13. DISPOSAL CONSIDERATIONS

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### Waste treatment methods

Residues disposal	
Protective measures:	The safety precautions applied to the handling of the product shall be considered when disposing of residues. For further details, refer to section 7.
Method:	Do not burn residues. Do not dispose of residues with normal waste, or to sewer systems. Surplus product, spray mixture, rinse water or any residue which cannot be used according to
Recommendations:	label instructions shall be properly disposed of according to local regulations. To reduce the problems associated with the disposal of hazardous chemicals, consider purchasing quantities limited to the amounts needed. Prepare only as much product as needed at each application, following the instructions of use.
Container disposal	
Protective measures:	Care should be taken when handling empty containers that have not been thoroughly cleaned or rinsed out. Empty containers may retain vapours and product residues and hence be potentially hazardous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers that were not thoroughly rinsed or cleaned to heat, flame, sparks or other sources of ignition. They may explode and cause injury and/or death.
Method:	Do not burn empty containers. Do not reuse empty containers for any other purpose. Do not dispose of contaminated containers in normal waste. Used containers shall be closely secured and stored until they can be safely disposed of. If possible, triple rinse or pressure rinse contaminated containers. If recycling facilities are available, deliver decontaminated containers to the designated collection point. If recycling facilities are not available, puncture, break or crush decontaminated containers to avoid reuse and provide appropriate disposal in accordance with local regulations.

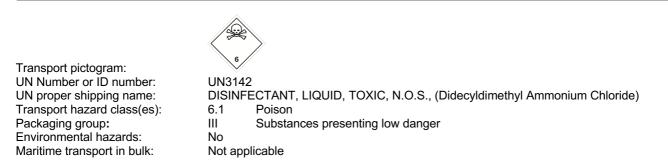
#### Sewage disposal

Do not wash or dispose of untreated waste, spillages, residues or product surplus into sewers or water systems.

### Other disposal recommendations

The generation of waste should be minimised or avoided wherever possible. If uncertain of local requirements, contact the proper environmental authorities for information on waste disposal in your area.

## 14. TRANSPORT INFORMATION



## **15. REGULATORY INFORMATION**

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

National regulations:

Registered under the National Regulator for Compulsory Specification (NRCS) for chemical disinfectants as published by Government Notice No. 1119 (Government Gazette No. 41186) on 20 October 2017. NRCS Registration: NRCS/8054/281852/ 1202.

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	In compliance with Occupational Health and Safety Act (85/1993): Regulations for Hazardous Chemical Agents, 2021, published by Government Notice No. 11263
	(Government Gazette No. 44348) on 29 March 2021.
Other regulations:	In compliance with Regulation (EC) No.1907/2006 of the European Parliament and of the Council on 18 December 2006.
Reference documents:	Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 2021. Dangerous Goods Emergency Action Code List (TDG), 2021

## Chemical safety assessment

For this product, a chemical safety assessment was not carried out.

## **16. OTHER INFORMATION**

## Revisions

Version	Date issued	Updates
1	01.07.2022	GHS classification and labelling of chemicals compliance.

### Full text of H-Statements listed

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long-lasting effects

#### Full text of abbreviations of hazard categories listed

Acute Tox.	Acute (short-term) toxicity
Aquatic Acute	Acute (short-term) aquatic toxicity
Aquatic Chronic	Chronic (long-term) aquatic toxicity
Skin Corr.	Skin corrosion

### Full text of abbreviations of control parameters listed

ADI	Acceptable Daily Intake
DNEL	Derived No-Effect Level
EFSA	European Food Safety Authority
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals

#### Full text of abbreviations of toxicity and ecotoxicity reference values listed

EC50	Effective concentration estimated to produce a specific effect in 50% of the test organisms.
LC50	Lethal concentration estimated to cause the death of 50% of the test organisms.
LD50	Lethal dosage estimated to cause the death of 50% of the test organisms.
NOAEL	No observed adverse effect level.
NOEC	No observed effect concentration.

#### Disclaimer

Each user should read this Safety Data Sheet (SDS) and consider the safety precaution recommended. This SDS summarises the present state of our knowledge about the health and safety hazard information and the safe handling and use of the product and is to be used for this product only. The information was obtained from sources which we believe are reliable and is provided in good faith, but do not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and for this reason, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.