



SAFETY DATA SHEET

Surface Concentrate Non-Fragranced

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name Surface Concentrate Non-Fragranced
Product number 777001

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

Identified uses Concentrated disinfectant.
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier The MazWell Group Ltd.
 Units 11/14-15 Ardglen Industrial Estate,
 Whitchurch, Hampshire,
 RG28 7BB, United Kingdom
 +44 (0)1256-893883
 +44 (0)1256-893868
 enquiries@themazwellgroup.com

1.4. Emergency telephone number

Emergency telephone +44 (0)1256 893883 (Mon- Fri 9:00 am - 4:30 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Acute Tox. 3 - H331 Skin Corr. 1C - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Carc. 2 - H351 STOT RE 2 - H373
Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2. Label elements

Hazard pictograms



Signal word

Danger

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Hazard statements	<p>H314 Causes severe skin burns and eye damage.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H331 Toxic if inhaled.</p> <p>H351 Suspected of causing cancer.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>H410 Very toxic to aquatic life with long lasting effects.</p>
Precautionary statements	<p>P201 Obtain special instructions before use.</p> <p>P260 Do not breathe vapour/ spray.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	<p>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, Polyhexamethylene biguanide hydrochloride, Didecyldimethylammonium chloride, Alcohols, C9-11, ethoxylated, Tetrasodium ethylene diamine tetraacetate</p>
Supplementary precautionary statements	<p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention.</p> <p>P311 Call a POISON CENTER/ doctor.</p> <p>P314 Get medical advice/ attention if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P391 Collect spillage.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p>

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

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Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	5 - <10%
CAS number: 68424-85-1 EC number: 270-325-2 M factor (Acute) = 10 M factor (Chronic) = 1	
Classification Acute Tox. 4 - H302 Skin Corr. 1C - H314 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	
Polyhexamethylene biguanide hydrochloride	5 - <10%
CAS number: 27083-27-8 EC number: 608-042-7 M factor (Acute) = 10 M factor (Chronic) = 10	
Classification Acute Tox. 4 - H302 Acute Tox. 2 - H330 Eye Dam. 1 - H318 Skin Sens. 1B - H317 Carc. 2 - H351 STOT RE 1 - H372 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	
Didecyldimethylammonium chloride	3 - <5%
CAS number: 7173-51-5 EC number: 230-525-2 M factor (Acute) = 10	
Classification Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411	
Alcohols, C9-11, ethoxylated	1 - <2.5%
CAS number: 68439-46-3	
Classification Acute Tox. 4 - H302 Eye Dam. 1 - H318	

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Tetrasodium ethylene diamine tetraacetate	1 - <2.5%
CAS number: 64-02-8	EC number: 200-573-9
Classification	
Acute Tox. 4 - H302	
Eye Dam. 1 - H318	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. Chemical burns must be treated by a physician.
Inhalation	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. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Skin contact	It is important to remove the substance from the skin immediately. Take off immediately all contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. Chemical burns must be treated by a physician.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

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

General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Severe irritation of nose and throat. Symptoms following overexposure may include the following: Corrosive to the respiratory tract.
Ingestion	May cause sensitisation or allergic reactions in sensitive individuals. May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.
Skin contact	May cause skin sensitisation or allergic reactions in sensitive individuals. Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur.

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Eye contact Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

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

Notes for the doctor Treat symptomatically. May cause sensitisation or allergic reactions in sensitive individuals.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up. Severe corrosive hazard. Water used for fire extinguishing, which has been in contact with the product, may be corrosive.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Very toxic or corrosive gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Regular protection may not be safe. Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

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. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of vapours and spray/mists. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains and the aquatic environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Do not touch or walk into spilled material. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Do not empty into drains. Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. For waste disposal, see Section 13. Wash thoroughly after dealing with a spillage.

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6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. This product is corrosive. Immediate first aid is imperative. Suspected of causing cancer. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Store locked up. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep containers upright. Protect containers from damage. 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.

Storage class Corrosive storage.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Ingredient comments No exposure limits known for ingredient(s).

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly.
Environmental exposure controls	Keep container tightly sealed when not in use. 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

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Characteristic.
Odour threshold	Not available.
pH	pH (concentrated solution): 6.5 - 7.5
Melting point	Not available.
Initial boiling point and range	100°C
Flash point	Not available.
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Bulk density	1 g/mL
Solubility(ies)	Not known.
Partition coefficient	Not available.

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Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	<50 cPs @ 25°C
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Refractive index	10 - 14
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	See the other subsections of this section for further details.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No potentially hazardous reactions known.
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10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time. Avoid freezing.
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10.5. Incompatible materials

Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Corrosive gases or vapours.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
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ATE oral (mg/kg)	2,257.7
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Acute toxicity - dermal

Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
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Acute toxicity - inhalation

Notes (inhalation LC₅₀)	Acute Tox. 3 - H331 Toxic if inhaled.
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ATE inhalation (gases ppm)	1,666.67
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ATE inhalation (vapours mg/l)	8.33
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ATE inhalation (dusts/mists mg/l)	0.83
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Skin corrosion/irritation

Animal data	Skin Corr. 1B - H314 Causes severe burns.
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Serious eye damage/irritation

Serious eye damage/irritation Eye Dam. 1 - H318 Corrosive to skin. Corrosivity to eyes is assumed.

Respiratory sensitisation

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

Skin sensitisation

Skin sensitisation May cause skin sensitisation or allergic reactions in sensitive individuals.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Suspected of causing cancer.

IARC carcinogenicity

None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

STOT - repeated exposure STOT RE 2 - H373 May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information

May cause cancer after repeated exposure. Risk of cancer depends on duration and level of exposure. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

Corrosive to the respiratory tract. Symptoms following overexposure may include the following: Severe irritation of nose and throat.

Ingestion

May cause sensitisation or allergic reactions in sensitive individuals. May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.

Skin contact

May cause skin sensitisation or allergic reactions in sensitive individuals. Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur.

Eye contact

Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

Route of exposure

Ingestion Inhalation Skin and/or eye contact

Target organs

No specific target organs known.

Medical considerations

Skin disorders and allergies.

Toxicological information on ingredients.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Acute toxicity - oral

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Acute toxicity oral (LD₅₀ mg/kg)	344.0
Species	Rat
Notes (oral LD₅₀)	Supplier's information. Harmful if swallowed.
ATE oral (mg/kg)	344.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	3,340.0
Species	Rabbit
Notes (dermal LD₅₀)	Based on available data the classification criteria are not met. Supplier's information.
ATE dermal (mg/kg)	3,340.0
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	Based on available data the classification criteria are not met.
<u>Skin corrosion/irritation</u>	
Animal data	Dose: 24, hours, Rabbit Corrosive. Based on available data the classification criteria are not met. Supplier's information.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Corrosive to skin. Corrosivity to eyes is assumed. Supplier's information.
<u>Skin sensitisation</u>	
Skin sensitisation	Buehler test - Guinea pig: Not sensitising. Supplier's information.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Chromosome aberration: Negative. Based on available data the classification criteria are not met. Supplier's information.
Genotoxicity - in vivo	Ames test: Negative. Based on available data the classification criteria are not met. Supplier's information.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	

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Aspiration hazard Based on available data the classification criteria are not met.

Polyhexamethylene biguanide hydrochloride

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,049.0

Species Rat

Notes (oral LD₅₀) Harmful if swallowed.

ATE oral (mg/kg) 1,049.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >5000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

ATE inhalation (gases ppm) 100.0

ATE inhalation (vapours mg/l) 0.5

ATE inhalation (dusts/mists mg/l) 0.05

Skin corrosion/irritation

Animal data Dose: 0.5g, 1 hour, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.1 mL, 1 hour, Rabbit Cornea score: 2 Iris score: 1 Conjunctivae score: 2 Chemosis score: 3 Causes serious eye damage.

Skin sensitisation

Skin sensitisation Buehler test - Guinea pig: Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

Genotoxicity - in vivo DNA damage and/or repair: Negative.

Carcinogenicity

Carcinogenicity Suspected of causing cancer.

Didecyldimethylammonium chloride

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 329.0

Species Rat

Notes (oral LD₅₀) Harmful if swallowed.

ATE oral (mg/kg) 329.0

Skin corrosion/irritation

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Animal data Dose: 0.5 mL, 1 hour, Rabbit Erythema/eschar score: Severe erythema (beef redness) to eschar formation preventing grading of erythema (4). Oedema score: Severe oedema - raised more than 1 mm and extending beyond area of exposure (4). Corrosive.

Serious eye damage/irritation

Serious eye damage/irritation Corrosive to skin. Corrosivity to eyes is assumed.

Skin sensitisation

Skin sensitisation Buehler test - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity Aquatic Acute 1 - H400 Very toxic to aquatic life. Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Toxicity Aquatic Acute 1 - H400 Very toxic to aquatic life.

Acute aquatic toxicity

LE(C)₅₀ 0.01 < L(E)C₅₀ ≤ 0.1

M factor (Acute) 10

Acute toxicity - fish LC₅₀, 96 hours: 0.93 mg/l, Oncorhynchus mykiss (Rainbow trout)
LC₅₀, 96 hours: 0.28 mg/l, Pimephales promelas (Fat-head Minnow)
LC₅₀, 96 hours: 0.515 mg/l, Lepomis macrochirus (Bluegill)
Supplier's information.

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.016 mg/l, Daphnia magna
Supplier's information.

Acute toxicity - aquatic plants EC₅₀, 72 hours: 0.049 mg/l, Pseudokirchneriella subcapitata
Supplier's information.

Acute toxicity - terrestrial LC₅₀, 14 days: 7070 mg/kg, Eisenia Fetida (Earthworm)
Supplier's information.

Acute toxicity - microorganisms EC₅₀, 3 hours: 7.75 mg/l, Activated sludge
EC₁₀₀, 96 hours: ~16 mg/l, Pseudomonas putida
Supplier's information.

Chronic aquatic toxicity

M factor (Chronic) 1

Chronic toxicity - fish early life stage NOEC, 34 days: 0.032 mg/l, Pimephales promelas (Fat-head Minnow)
Supplier's information.

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 0.0042 mg/l, Daphnia magna
NOEC, 28 days: 520 mg/l, Chironomus sp.

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Polyhexamethylene biguanide hydrochloride

Acute aquatic toxicity

M factor (Acute)	10
Acute toxicity - fish	LC ₅₀ , 96 hours: 0.026 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 90 µg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 15 µg/l, Selenastrum capricornutum

Chronic aquatic toxicity

M factor (Chronic)	10
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 8.4 µg/l, Daphnia magna

Didecyldimethylammonium chloride

Acute aquatic toxicity

LE(C)₅₀	0.01 < L(E)C ₅₀ ≤ 0.1
M factor (Acute)	10
Acute toxicity - fish	LC ₅₀ , 96 hours: 0.49 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 0.029 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 0.062 mg/l, Pseudokirchneriella subcapitata

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.021 mg/l, Daphnia magna
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12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Persistence and degradability	The product is readily biodegradable.
Biodegradation	- Degradation (>99%): 7 days Supplier's information.

Polyhexamethylene biguanide hydrochloride

Persistence and degradability	Not readily biodegradable.
Stability (hydrolysis)	pH4, pH7, pH9 - Degradation < 10%: 5 days @ 50°C
Biodegradation	Water - Degradation 3.8%: 99 days

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Didecyldimethylammonium chloride

Persistence and degradability	The product is readily biodegradable.
Stability (hydrolysis)	pH4, pH7, pH9 - Half-life : >1 year @ 20°C
Biodegradation	Water - Degradation 69%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	Not available.

Ecological information on ingredients.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Bioaccumulative potential	No data available on bioaccumulation.
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Polyhexamethylene biguanide hydrochloride

Partition coefficient	log Pow: -2.3
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Didecyldimethylammonium chloride

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	log Pow: 2.59

12.4. Mobility in soil

Mobility	No data available.
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Ecological information on ingredients.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Mobility	The product is partly soluble in water and may spread in the aquatic environment.
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Didecyldimethylammonium chloride

Mobility	The product is soluble in water.
Surface tension	25.82 mN/m @ 20°C

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.
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Ecological information on ingredients.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Results of PBT and vPvB assessment	This substance is not classified as PBT or vPvB according to current EU criteria.
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Polyhexamethylene biguanide hydrochloride

Surface Concentrate Non-Fragranced

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

Didecyldimethylammonium chloride

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Reuse or recycle products wherever possible. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	2922
UN No. (IMDG)	2922
UN No. (ICAO)	2922
UN No. (ADN)	2922

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Didecyldimethylammonium chloride, Polyhexamethylene biguanide hydrochloride)
Proper shipping name (IMDG)	CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Didecyldimethylammonium chloride, Polyhexamethylene biguanide hydrochloride, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)
Proper shipping name (ICAO)	CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Didecyldimethylammonium chloride, Polyhexamethylene biguanide hydrochloride)
Proper shipping name (ADN)	CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Didecyldimethylammonium chloride, Polyhexamethylene biguanide hydrochloride)

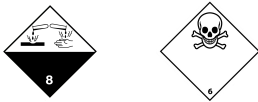
14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID subsidiary risk	6.1
ADR/RID classification code	CT1
ADR/RID label	8
IMDG class	8

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IMDG subsidiary risk	6.1
ICAO class/division	8
ICAO subsidiary risk	6.1
ADN class	8
ADN subsidiary risk	6.1

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	3
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	86
Tunnel restriction code	(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

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
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EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
 Commission Regulation (EU) No 2015/830 of 28 May 2015.
 Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 IATA: International Air Transport Association.
 ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
 IMDG: International Maritime Dangerous Goods.
 CAS: Chemical Abstracts Service.
 ATE: Acute Toxicity Estimate.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 EC₅₀: 50% of maximal Effective Concentration.
 PBT: Persistent, Bioaccumulative and Toxic substance.
 vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Carc. = Carcinogenicity
 Eye Dam. = Serious eye damage
 Skin Corr. = Skin corrosion
 Skin Sens. = Skin sensitisation
 STOT RE = Specific target organ toxicity-repeated exposure
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Classification procedures according to Regulation (EC) 1272/2008

Acute Tox. 3 - H331: Eye Dam. 1 - H318: Skin Corr. 1B - H314: STOT RE 2 - H373: Skin Sens. 1 - H317: Carc. 2 - H351: : Calculation method. Aquatic Acute 1 - H400: Aquatic Chronic 1 - H410: : Calculation method.

Training advice

Only trained personnel should use this material.

Revision comments

Revised formulation.

Revision date

17/04/2018

Revision

4

Supersedes date

06/03/2018

SDS number

6232

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Hazard statements in full

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H351 Suspected of causing cancer.
H372 Causes damage to organs (Respiratory tract) through prolonged or repeated exposure 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.
H411 Toxic to aquatic life with long lasting effects.

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.