

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended  
by UK REACH Regulations SI 2019/758



## ***mikrozid® alcohol free wipes***

Version  
06.09

Revision Date:  
07.07.2025

Date of last issue: 26.06.2025

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

#### **1.1 Product identifier**

Trade name : mikrozid® alcohol free wipes  
Unique Formula Identifier (UFI) : 58J1-M0QP-U00Y-KEAC

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

Use of the Sub-  
stance/Mixture : Disinfectants

Recommended restrictions  
on use : For professional users only.

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

Producer : Schülke & Mayr GmbH  
Robert-Koch-Str. 2  
  
22851 Norderstedt  
Germany  
Telephone: +49 (0)40/ 52100-0  
Telefax: +49 (0)40/ 52100318  
mail@schuelke.com  
www.schuelke.com

Supplier : Schülke & Mayr UK Ltd.  
Cygnet House  
1, Jenkin Road  
  
Sheffield S9 1AT  
United Kingdom  
Telephone: +44 114 254 35 00  
Telefax: +44 114 254 35 01  
mail.uk@schulke.com

E-mail address of person  
responsible for the  
SDS/Contact person : Application Specialists  
+49 (0)40/ 521 00 666  
AD@schuelke.com

#### **1.4 Emergency telephone number**

Emergency telephone num-  
ber : Carechem 24 International: +44 1235 239670

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Long-term (chronic) aquatic hazard, Category 3

H412: Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P273 Avoid release to the environment.

**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Chemical nature : Aqueous containing solution on non-woven

##### Components

| Chemical name                                                                       | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification                                                                                                                                    | Concentration<br>(% w/w) |
|-------------------------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides | 85409-23-0<br>287-090-7<br>01-2120771812-51-XXXX      | Acute Tox. 4; H302<br>Skin Corr. 1B;<br>H314<br>Eye Dam. 1; H318<br>Aquatic Acute 1;<br>H400<br>Aquatic Chronic 1;<br>H410<br><br>M-Factor (Acute | >= 0.1 - < 0.25          |

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|                                                                               |                                                                     |                                                                                                                                                                                                                                               |                 |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
|                                                                               |                                                                     | aquatic toxicity): 10<br>M-Factor (Chronic<br>aquatic toxicity): 1                                                                                                                                                                            |                 |
| didecyldimethylammonium chloride                                              | 7173-51-5<br>230-525-2<br>612-131-00-6<br>01-2119945987-15-<br>XXXX | Acute Tox. 3; H301<br>Skin Corr. 1B;<br>H314<br>Eye Dam. 1; H318<br>Aquatic Acute 1;<br>H400<br>Aquatic Chronic 2;<br>H411<br><br>M-Factor (Acute<br>aquatic toxicity): 10<br>M-Factor (Chronic<br>aquatic toxicity): 1                       | >= 0.1 - < 0.25 |
| Quaternary ammonium compounds,<br>benzyl-C12-16-alkyldimethyl, chlo-<br>rides | 68424-85-1<br>270-325-2<br>01-2119965180-41-<br>XXXX                | Acute Tox. 4; H302<br>Acute Tox. 4; H312<br>Skin Corr. 1B;<br>H314<br>Eye Dam. 1; H318<br>Aquatic Acute 1;<br>H400<br>Aquatic Chronic 1;<br>H410<br><br>M-Factor (Acute<br>aquatic toxicity): 10<br>M-Factor (Chronic<br>aquatic toxicity): 1 | >= 0.1 - < 0.25 |

For explanation of abbreviations see section 16.

## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

- General advice : Take off contaminated clothing and shoes immediately.
- If inhaled : If symptoms persist, call a physician.
- In case of skin contact : Wash with water and soap as a precaution.  
If symptoms persist, call a physician.
- In case of eye contact : Flush eyes with water as a precaution.  
If eye irritation persists, consult a specialist.
- If swallowed : Do NOT induce vomiting.  
Drink water as a precaution.  
Consult a physician if necessary.

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

Symptoms : Treat symptomatically.

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

Treatment : For specialist advice physicians should contact the Poisons Information Service.

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## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

Suitable extinguishing media : Dry powder  
Carbon dioxide (CO<sub>2</sub>)  
Water spray jet  
Foam

Unsuitable extinguishing media : Do NOT use water jet.

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

Hazardous combustion products : No hazardous combustion products are known

### **5.3 Advice for firefighters**

Special protective equipment : In the event of fire, wear self-contained breathing apparatus for firefighters

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## **SECTION 6: Accidental release measures**

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

Personal precautions : Use personal protective equipment.

### **6.2 Environmental precautions**

Environmental precautions : No special environmental precautions required.

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

Methods for cleaning up : Use mechanical handling equipment.

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

see Section 8 + 13

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## **SECTION 7: Handling and storage**

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

Advice on safe handling : No special precautions required.  
Advice on protection against fire and explosion : No special protective measures against fire required.

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

Requirements for storage : Store at room temperature in the original container.  
areas and containers

Further information on stor- : Keep container tightly closed. Protect from frost, heat and  
age conditions sunlight. Recommended storage temperature: 15 - 25°C

Advice on common storage : Keep away from food and drink.

### 7.3 Specific end use(s)

Specific use(s) : none

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

#### Derived No Effect Level (DNEL)

| Substance name                                                                      | End Use | Exposure routes | Potential health effects                           | Value      |
|-------------------------------------------------------------------------------------|---------|-----------------|----------------------------------------------------|------------|
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides | Workers | Inhalation      | Long-term systemic effects                         | 1 mg/m3    |
| didecyldimethylammonium chloride                                                    | Workers | Inhalation      | Acute systemic effects, Long-term systemic effects | 5.39 mg/m3 |
|                                                                                     | Workers | Dermal          | Acute systemic effects, Long-term systemic effects | 1.55 mg/kg |
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides               | Workers | Skin contact    | Long-term systemic effects                         | 5.7 mg/kg  |
|                                                                                     | Workers | Inhalation      | Long-term systemic effects                         | 3.96 mg/m3 |

#### Predicted No Effect Concentration (PNEC)

| Substance name                                                                      | Environmental Compartment | Value         |
|-------------------------------------------------------------------------------------|---------------------------|---------------|
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides | Fresh water               | 0.000415 mg/l |

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|                                                                       |                                         |               |
|-----------------------------------------------------------------------|-----------------------------------------|---------------|
|                                                                       | Marine water                            | 0.000042 mg/l |
|                                                                       | Sewage treatment plant                  | 0.21 mg/l     |
|                                                                       | Fresh water sediment                    | 6.81 mg/kg    |
|                                                                       | Marine sediment                         | 0.681 mg/kg   |
|                                                                       | Soil                                    | 1.36 mg/kg    |
| didecyldimethylammonium chloride                                      | Fresh water                             | 0.002 mg/l    |
|                                                                       | Marine water                            | 0.0002 mg/l   |
|                                                                       | Fresh water sediment                    | 2.82 mg/kg    |
|                                                                       | Marine sediment                         | 0.28 mg/kg    |
|                                                                       | Sewage treatment plant                  | 0.595 mg/l    |
|                                                                       | Soil                                    | 1.4 mg/kg     |
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides | Fresh water                             | 0.0009 mg/l   |
|                                                                       | Marine water                            | 0.00009 mg/l  |
|                                                                       | Fresh water sediment                    | 12.27 mg/kg   |
|                                                                       | Marine sediment                         | 13.09 mg/kg   |
|                                                                       | Soil                                    | 7 mg/kg       |
|                                                                       | Effects on waste water treatment plants | 0.4 mg/l      |
|                                                                       | Intermittent use/release                | 0.00016 mg/l  |

### 8.2 Exposure controls

#### Personal protective equipment

Hand protection

Directive : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Remarks : Prolonged contact: Nitrile rubber gloves e.g. Camatril (>480 Min., layer thickness: 0,40 mm) or butyl rubber gloves e.g. Butoject (>480 Min., layer thickness: 0,70 mm) made by KCL or gloves from other manufacturers offering the same protection.

Respiratory protection : No personal respiratory protective equipment normally required.

Protective measures : Avoid contact with eyes.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|| Appearance : wet solid; aqueous containing solution on non-woven  
Colour : colourless  
Odour : none  
Odour Threshold : not determined  
  
pH : 5 - 8 (20 °C)  
Concentration: 100 %  
of the active solution

Melting point/freezing point : ca. 0 °C

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|                                                  |                                                                |
|--------------------------------------------------|----------------------------------------------------------------|
|                                                  | of the active solution                                         |
| Decomposition temperature                        | Not applicable                                                 |
| Boiling point/boiling range                      | : ca. 100 °C of the active solution                            |
| Flash point                                      | : Not applicable                                               |
| Evaporation rate                                 | : not determined                                               |
| Flammability (solid, gas)                        | : Not applicable                                               |
| Upper explosion limit / Upper flammability limit | : Not applicable                                               |
| Lower explosion limit / Lower flammability limit | : Not applicable                                               |
| Vapour pressure                                  | : No data available                                            |
| Relative vapour density                          | : Not applicable                                               |
| Density                                          | : ca. 1.00 g/cm <sup>3</sup> (20 °C)<br>of the active solution |
| Solubility(ies)                                  |                                                                |
| Water solubility                                 | : completely soluble (20 °C)                                   |
| Partition coefficient: n-octanol/water           | : Not applicable                                               |
| Auto-ignition temperature                        | : Not applicable                                               |
| Viscosity                                        |                                                                |
| Viscosity, dynamic                               | : No data available                                            |
| Viscosity, kinematic                             | : not determined                                               |
| Explosive properties                             | : No data available                                            |
| Oxidizing properties                             | : The substance or mixture is not classified as oxidizing.     |

### **9.2 Other information**

Metal corrosion rate : None reasonably foreseeable.

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## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

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### **10.2 Chemical stability**

The product is chemically stable.

### **10.3 Possibility of hazardous reactions**

Hazardous reactions : None reasonably foreseeable.

### **10.4 Conditions to avoid**

Conditions to avoid : Protect from frost, heat and sunlight.

### **10.5 Incompatible materials**

Materials to avoid : None reasonably foreseeable.

### **10.6 Hazardous decomposition products**

None reasonably foreseeable.

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## **SECTION 11: Toxicological information**

### **11.1 Information on toxicological effects**

#### **Acute toxicity**

Not classified based on available information.

#### **Product:**

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

#### **Components:**

#### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Acute oral toxicity : LD50 (Rat): 344 mg/kg  
Method: OECD Test Guideline 401  
Remarks: Based on data from similar materials

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit): 2,300 mg/kg  
Method: OECD Test Guideline 402  
Remarks: Based on data from similar materials

#### **didecyldimethylammonium chloride:**

Acute oral toxicity : LD50 (Rat): 238 mg/kg  
Method: OECD Test Guideline 401  
Assessment: Toxic if swallowed.

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit): 3,342 mg/kg

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

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|                           |   |                                                                                                         |
|---------------------------|---|---------------------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : | LD50 (Rat): > 300 - 2,000 mg/kg<br>Method: OECD Test Guideline 401<br>Assessment: Harmful if swallowed. |
| Acute inhalation toxicity | : | LC50 (Rat): > 2 mg/l<br>Test atmosphere: dust/mist                                                      |
| Acute dermal toxicity     | : | LD50 (Rat): 1,100 mg/kg<br>Assessment: Harmful in contact with skin.                                    |

### **Skin corrosion/irritation**

Not classified based on available information.

### **Components:**

#### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

|         |   |                                                 |
|---------|---|-------------------------------------------------|
| Species | : | Rabbit                                          |
| Result  | : | Corrosive after 3 minutes to 1 hour of exposure |

#### **didecyldimethylammonium chloride:**

|               |   |                                                 |
|---------------|---|-------------------------------------------------|
| Species       | : | Rabbit                                          |
| Exposure time | : | 4 h                                             |
| Method        | : | OECD Test Guideline 404                         |
| Result        | : | Corrosive after 3 minutes to 1 hour of exposure |

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

|         |   |                                                 |
|---------|---|-------------------------------------------------|
| Species | : | Rabbit                                          |
| Result  | : | Corrosive after 3 minutes to 1 hour of exposure |
| GLP     | : | no                                              |

### **Serious eye damage/eye irritation**

Not classified based on available information.

### **Components:**

#### **didecyldimethylammonium chloride:**

|        |   |                                 |
|--------|---|---------------------------------|
| Result | : | Irreversible effects on the eye |
|--------|---|---------------------------------|

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

|        |   |                                 |
|--------|---|---------------------------------|
| Result | : | Irreversible effects on the eye |
|--------|---|---------------------------------|

### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

Not classified based on available information.

#### **Respiratory sensitisation**

Not classified based on available information.

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### **Components:**

#### **didecyldimethylammonium chloride:**

Test Type : Buehler Test  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Did not cause sensitisation on laboratory animals.  
GLP : yes

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Test Type : Buehler Test  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Did not cause sensitisation on laboratory animals.  
GLP : yes

### **Germ cell mutagenicity**

Not classified based on available information.

### **Components:**

#### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Result: negative  
GLP: yes

Test Type: Chromosome aberration test in vitro  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative  
GLP: yes  
Remarks: Based on data from similar materials

#### **didecyldimethylammonium chloride:**

Genotoxicity in vitro : Test system: Salmonella typhimurium  
Metabolic activation: Metabolic activation  
Method: OECD Test Guideline 471  
Result: Not mutagenic in Ames Test

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow  
cytogenetic test, chromosomal analysis)  
Species: Rat  
Application Route: Oral  
Method: OECD Test Guideline 475  
Remarks: negative

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

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### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

- Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: Not mutagenic in Ames Test
- Genotoxicity in vivo : Test Type: In vivo micronucleus test  
Species: Mouse (male and female)  
Application Route: Oral  
Method: OECD Test Guideline 474  
GLP: yes
- Germ cell mutagenicity- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

### **Carcinogenicity**

Not classified based on available information.

### **Components:**

#### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Remarks : No data available

#### **didecyldimethylammonium chloride:**

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

### **Reproductive toxicity**

Not classified based on available information.

### **Components:**

#### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Effects on fertility : Test Type: Two-generation study  
Species: Rat, male and female  
Application Route: Oral  
General Toxicity - Parent: NOAEL: 51 - 102 mg/kg body weight  
General Toxicity F1: NOAEL: 51 - 102 mg/kg body weight  
GLP: yes

#### **didecyldimethylammonium chloride:**

Reproductive toxicity - Assessment : No data available

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Effects on fertility : Test Type: Two-generation study  
Species: Rat, male and female

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Application Route: Oral  
General Toxicity - Parent: NOAEL: 51 - 102 mg/kg body weight  
General Toxicity F1: NOAEL: 41 - 83 mg/kg body weight  
Fertility: NOAEL: 139 - 198 mg/kg body weight  
Method: OECD Test Guideline 416  
Result: Animal testing did not show any effects on fertility.  
GLP: yes

Effects on foetal development : Species: Rat  
Application Route: Oral  
General Toxicity Maternal: NOAEL: 8.1 mg/kg body weight  
Developmental Toxicity: NOAEL: 81 mg/kg body weight  
Method: OECD Test Guideline 414  
GLP: yes  
Remarks: Animal testing did not show any effects on foetal development.

### **STOT - single exposure**

Not classified based on available information.

#### **Components:**

##### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Remarks : No data available

##### **didecyldimethylammonium chloride:**

Remarks : No data available

##### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Remarks : No data available

### **STOT - repeated exposure**

Not classified based on available information.

#### **Components:**

##### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Remarks : No data available

##### **didecyldimethylammonium chloride:**

Remarks : No data available

##### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Remarks : No data available

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### **Repeated dose toxicity**

#### **Components:**

##### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Remarks : No data available

##### **didecyldimethylammonium chloride:**

Remarks : No data available

##### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Species : Rat, male  
NOAEL : 31 mg/kg  
Application Route : Oral  
Exposure time : 90-day  
Method : OECD Test Guideline 408  
GLP : yes

Species : Rat  
NOAEL : 214 mg/kg  
Application Route : Oral  
Exposure time : 14-days  
Method : OECD Test Guideline 407

### **Aspiration toxicity**

Not classified based on available information.

### **Further information**

#### **Product:**

Remarks : No data is available on the product itself.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### **Components:**

##### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Toxicity to fish : LC50 (Fish): 1.06 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.015 mg/l  
aquatic invertebrates Exposure time: 48 h

M-Factor (Acute aquatic tox- : 10  
icity)

Toxicity to fish (Chronic tox- : NOEC: 0.032 mg/l  
icity) Exposure time: 28 d  
Species: Oncorhynchus mykiss (rainbow trout)

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.00415 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
GLP: yes

M-Factor (Chronic aquatic toxicity) : 1

### **didecyldimethylammonium chloride:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0.19 mg/l  
Exposure time: 96 h  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.062 mg/l  
Exposure time: 48 h  
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.026 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 201  
GLP: yes

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC: 0.032 mg/l  
Exposure time: 34 d  
Species: Danio rerio (zebra fish)  
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.014 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: Expert judgement and weight of evidence determination.

M-Factor (Chronic aquatic toxicity) : 1

### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.85 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): 0.015 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : IC50 : 0.03 mg/l  
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : 10

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Toxicity to fish (Chronic toxicity) : NOEC: 0.032 mg/l  
Exposure time: 34 d  
Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.0042 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 1

### **12.2 Persistence and degradability**

#### **Components:**

##### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 95.5 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
Remarks: Based on data from similar materials

##### **didecyldimethylammonium chloride:**

Biodegradability : Concentration: 10 mg/l  
Result: Readily biodegradable.  
Biodegradation: 72 %  
Exposure time: 28 d  
Method: OECD 301B/ ISO 9439/ EEC 84/449 C5  
GLP: yes

##### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Biodegradability : Concentration: 5 mg/l  
Result: Readily biodegradable.  
Biodegradation: 95.5 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

### **12.3 Bioaccumulative potential**

#### **Components:**

##### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

##### **didecyldimethylammonium chloride:**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Exposure time: 46 d  
Bioconcentration factor (BCF): 81

##### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

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Bioaccumulation : Exposure time: 35 d  
Concentration: 0.076 mg/l  
Bioconcentration factor (BCF): 79  
GLP: yes  
Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 2.75 (20 °C)

### **12.4 Mobility in soil**

#### **Components:**

#### **Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides:**

Mobility : Medium: Soil  
Remarks: immobile

#### **didecyldimethylammonium chloride:**

Mobility : Remarks: Mobile in soils

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Mobility : Remarks: No data available

### **12.5 Results of PBT and vPvB assessment**

#### **Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **12.6 Other adverse effects**

#### **Product:**

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

Product : Can be incinerated or landfilled together with household waste in compliance with the regulations, and after consultation with the waste disposal services.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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### **SECTION 14: Transport information**

#### **14.1 UN number**

ADR : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA : Not regulated as a dangerous good

#### **14.2 UN proper shipping name**

ADR : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA : Not regulated as a dangerous good

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

ADR : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA : Not regulated as a dangerous good

#### **14.4 Packing group**

ADR : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA (Cargo) : Not regulated as a dangerous good  
IATA (Passenger) : Not regulated as a dangerous good

#### **14.5 Environmental hazards**

Not regulated as a dangerous good

#### **14.6 Special precautions for user**

Not applicable

#### **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable for product as supplied.

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### **SECTION 15: Regulatory information**

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) : Conditions of restriction for the following entries should be considered: Number on list 3  
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation : Not applicable  
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) : Not applicable  
Regulation (EC) on substances that deplete the ozone : Not applicable

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UK REACH List of substances subject to authorisation : Not applicable  
(Annex XIV)

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial  
emissions (integrated pollution prevention and control)  
Volatile organic compounds (VOC) content: 0.11 %

according to Detergents : < 5%: Cationic surfactants  
Regulation EC 648/2004

### **The components of this product are reported in the following inventories:**

TCSI : On the inventory, or in compliance with the inventory

TSCA : Product contains substance(s) not listed on TSCA inventory.

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not  
on the Canadian DSL nor NDSL.

Quaternary ammonium compounds, C12-14-  
alkyl[(ethylphenyl)methyl]dimethyl, chlorides

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

NZIoC : Not in compliance with the inventory

TECI : On the inventory, or in compliance with the inventory

### **15.2 Chemical safety assessment**

**||** No Chemical Safety Assessment has been carried out for this mixture.

## **SECTION 16: Other information**

### **Full text of H-Statements**

H301 : Toxic if swallowed.  
H302 : Harmful if swallowed.  
H312 : Harmful in contact with skin.  
H314 : Causes severe skin burns and eye damage.  
H318 : Causes serious eye damage.  
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.

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### **Full text of other abbreviations**

|                 |   |                                    |
|-----------------|---|------------------------------------|
| Acute Tox.      | : | Acute toxicity                     |
| Aquatic Acute   | : | Short-term (acute) aquatic hazard  |
| Aquatic Chronic | : | Long-term (chronic) aquatic hazard |
| Eye Dam.        | : | Serious eye damage                 |
| Skin Corr.      | : | Skin corrosion                     |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### **Further information**

#### **Classification of the mixture:**

Aquatic Chronic 3                      H412

#### **Classification procedure:**

Calculation method

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide-

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