

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations 2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL ***No Change Service!***

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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

1.1 Product identifier

Trade name : mikrozid alc. free liquid -GB- 1 l FL

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, Meadowhall

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
(Schülke & Mayr UK Ltd.: +44-1142543500)

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019)

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations 2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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 The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019)

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 solution

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	85409-23-0 287-090-7 - - - 01-2120771812-51-XXXX	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	>= 0.1 - < 0.25
didecyltrimethylammonium chloride	7173-51-5 230-525-2 612-131-00-6 01-2119945987-15-XXXX	Acute Tox. 3; H301 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400	>= 0.1 - < 0.25

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

		Aquatic Chronic 2; H411	
		M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1 270-325-2 --- 01-2119965180-41-XXXX	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	>= 0.1 - < 0.25

For explanation of abbreviations see section 16.

Other information

CAS 68424-85-1 CORRESPONDS TO
REACH: EC 939-253-5
BPR: EC 269-919-4/ CAS 68391-01-5

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.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Treat symptomatically.

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations 2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry powder
Carbon dioxide (CO₂)
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 for firefighters : In the event of fire, wear self-contained breathing apparatus.

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 : Avoid subsoil penetration.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

see Section 8 + 13

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.

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health ef- fects	Value
Quaternary ammoni- um compounds, C12- 14- al- kyl[(ethylphenyl)meth yl]dimethyl, chlorides	Workers	Inhalation	Long-term systemic effects	1 mg/m3
didecyldime- thylammonium chlo- ride	Workers	Inhalation	Acute systemic ef- fects, Long-term systemic effects	5.39 mg/m3
	Workers	Dermal	Acute systemic ef- fects, Long-term systemic effects	1.55 mg/kg
Quaternary ammoni- um compounds, ben- zyl-C12-16- alkyldimethyl, chlo- rides	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 compo- unds, C12-14- al- kyl[(ethylphenyl)methyl]dimethyl, chlorides	Fresh water	0.000415 mg/l
	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

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

didecyldimethylammonium chloride	Fresh water	0.002 mg/l
	Marine water	0.0002 mg/l
	Fresh water sediment	2.83 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

- Eye/face protection : If splashes are likely to occur, wear:
Safety glasses with side-shields conforming to EN166
- 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 : liquid
- Colour : colourless
- Odour : characteristic
- Odour Threshold : not determined
- pH : 5 - 8 (20 °C)
Concentration: 100 %
- Melting point/freezing point : ca. 0 °C
- Decomposition temperature : Not applicable
- Boiling point/boiling range : ca. 100 °C
- Flash point : Not applicable

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019


schülke 

mikrozid alc. free liquid -GB- 1 l FL ***No Change Service!***


Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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 ³ (20 °C)
Solubility(ies)		
Water solubility	:	completely soluble (20 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	Not applicable
Viscosity		
Viscosity, dynamic	:	not determined
Explosive properties	:	Not applicable
 Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

9.2 Other information

 Metal corrosion rate : None reasonably foreseeable.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

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 : Never mix concentrates directly.

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL **No Change Service!**

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

10.6 Hazardous decomposition products

None reasonably foreseeable.

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:

Acute oral toxicity : LD50 (Rat): > 300 - 2,000 mg/kg
Method: OECD Test Guideline 401
Assessment: Harmful if swallowed.

Acute inhalation toxicity : LC50 (Rat): > 2 mg/l
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): 1,100 mg/kg
Assessment: Harmful in contact with skin.

Skin corrosion/irritation

Not classified based on available information.

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL ***No Change Service!***

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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.

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.

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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
Result: negative

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

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.

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL **No Change Service!**

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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
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.

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

||

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

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

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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.

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 aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.015 mg/l
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 10

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

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

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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

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

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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:

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

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL **No Change Service!**

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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.

Additional ecological information : No data is available on the product itself.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations.

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

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

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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.

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
International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	: Not applicable
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 Regulation EC 648/2004 : less than 5 %: Cationic surfactants

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

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL No Change Service!

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

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

Exempt

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.

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; AIIC - 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 - Interna-

SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations
2019

schülke 

mikrozid alc. free liquid -GB- 1 l FL ***No Change Service!***

Version
06.05

Revision Date:
26.08.2022

Date of last issue: 06.01.2022

tional 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.