

**gigazyme® X-tra**    **No Change Service!**Version  
02.04Revision Date:  
12.02.2019Date of last issue: 05.12.2016  
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name : gigazyme® X-tra

**1.2 Relevant identified uses of the substance or mixture and uses advised against**Use of the Sub-  
stance/Mixture : Cleaning agent, DisinfectantsRecommended restrictions  
on use : Restricted to professional users.**1.3 Details of the supplier of the safety data sheet**Manufacturer/ Supplier : 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.comE-mail address of person  
responsible for the  
SDS/Contact person : Application Department  
+49 (0)40/ 521 00 8800  
ApplicationDepartment.SM@schuelke.com  
(Schülke & Mayr UK Ltd.: +44-1142543500)**1.4 Emergency telephone number**Emergency telephone num-  
ber : UK Poisons Emergency number: 0870 600 6266

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**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Acute toxicity, Category 4	H302: Harmful if swallowed.
Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Short-term (acute) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

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**2.2 Label elements****Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms



Signal word

: Danger

Hazard statements

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

Supplemental Hazard Statements

: EUH208 Contains Subtilisin, Polyhexamethylene biguanide. May produce an allergic reaction.

Precautionary statements

: P273 Avoid release to the environment.  
 P280 Wear protective gloves/ eye protection/ face protection.  
 P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P501 Dispose of contents/ container to an approved waste disposal plant.

Special labelling of certain mixtures

: Labelling according to Regulation (EC) No. 648/2004: (5 - 15 % non-ionic surfactants, enzymes, perfumes)

**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 : Solution of the following substances with harmless additives.

**Components**

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Didecyldimethylammonium chloride	7173-51-5 230-525-2 612-131-00-6 01-2119945987-15-	Acute Tox. 3; H301 Skin Corr. 1B; H314 Aquatic Acute 1; H400; M = 10	7,7

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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	XXXX	Aquatic Chronic 2; H411	
Tridecylpolyethylenglycoether	69011-36-5 Polymer --- ---	Acute Tox. 4; H302 Eye Dam. 1; H318	< 10
Propan-2-ol	67-63-0 200-661-7 603-117-00-0 01-2119457558-25- XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	< 5
Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB)	27083-27-8 Polymer 616-207-00-X ---	Acute Tox. 4; H302 Acute Tox. 2; H330 Skin Sens. 1B; H317 Eye Dam. 1; H318 Carc. 2; H351 STOT RE 1; H372 Aquatic Acute 1; H400; M = 10 Aquatic Chronic 1; H410; M =	0,4

### Non-hazardous ingredients

Chemical name	Index-Number CAS-No. EC-No.	Concentration (% w/w)
Glycerol	--- 56-81-5 200-289-5	< 40

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General advice : Take off all contaminated clothing immediately.
- If inhaled : If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed : Do NOT induce vomiting.  
Clean mouth with water and drink afterwards plenty of water.  
Obtain medical attention.

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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  
Foam  
Water spray jet  
Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

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

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>)**5.3 Advice for firefighters**Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**Personal precautions : Increased risk of slipping in the presence of leaked / spilled product.  
Use personal protective equipment.**6.2 Environmental precautions**Environmental precautions : Do not flush into surface water or sanitary sewer system.  
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

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

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

Advice on safe handling : Prepare the working solution as given on the label(s) and/or the user instructions.

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

Hygiene measures : Keep away from food and drink.

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

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

Further information on storage conditions : Keep away from direct sunlight. Keep container tightly closed. Keep away from heat. Recommended storage temperature: 5 - 25°C

Advice on common storage : No materials to be especially mentioned.

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

Specific use(s) : none

### **SECTION 8: Exposure controls/personal protection**

#### **8.1 Control parameters**

##### **Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

Substance name	End Use	Exposure routes	Potential health effects	Value
Propan-2-ol	Workers	Skin contact	Long-term exposure, Systemic effects	888 mg/kg
	Workers	Inhalation	Long-term exposure, Systemic effects	500 mg/m <sup>3</sup>

##### **Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:**

Substance name	Environmental Compartment	Value
Propan-2-ol	Fresh water	140,9 mg/l
	Marine water	140,9 mg/l
	Fresh water sediment	552 mg/kg
	Marine sediment	552 mg/kg
	Soil	28 mg/kg
	Intermittent use/release	140,9 mg/l
	Effects on waste water treatment plants	2251 mg/l
	Oral	160 mg/kg food

#### **8.2 Exposure controls**

##### **Personal protective equipment**



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Relative density	:	ca. 1,08 g/cm <sup>3</sup> (20 °C)
Solubility(ies)		
Water solubility	:	in all proportions (20 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	ca. 53 mPa*s
Explosive properties	:	No data available
Oxidizing properties	:	No data available

### **9.2 Other information**

Flammability (liquids)	:	Does not sustain combustion.
Metal corrosion rate	:	Based on available data, the classification criteria are not met.

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

### **10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

### **10.2 Chemical stability**

None reasonably foreseeable.

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

Hazardous reactions : No dangerous reaction known under conditions of normal use.

### **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.

### **10.6 Hazardous decomposition products**

None reasonably foreseeable.

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## **SECTION 11: Toxicological information**

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

#### **Acute toxicity**

##### **Product:**

Acute oral toxicity : Acute toxicity estimate: 1.026 mg/kg

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Assessment: Harmful if swallowed.

Acute inhalation toxicity : Acute toxicity estimate: &gt; 50 mg/l

Acute dermal toxicity : Acute toxicity estimate: &gt; 5.000 mg/kg

**Components:****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

**Tridecylpolyethylenglycolether:**Acute oral toxicity : LD50 (Rat): 300 - 2.000 mg/kg  
Assessment: Harmful if swallowed.

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rat): &gt; 2.000 mg/kg

**Propan-2-ol:**

Acute oral toxicity : LD50 (Rat): &gt; 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 39 mg/l  
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): &gt; 5.000 mg/kg

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**Acute oral toxicity : LD50 (Rat): 500 - 1.000 mg/kg  
Assessment: Harmful if swallowed.Acute inhalation toxicity : LC50 (Rat): 0,29 mg/l  
Method: OECD Test Guideline 403  
Assessment: Fatal if inhaled.

Acute dermal toxicity : Remarks: No data available

**Skin corrosion/irritation****Product:**

Assessment : Causes severe skin burns and eye damage.

Method : Calculation method



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**Components:****Didecyldimethylammonium chloride:**

Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : Corrosive

**Tridecylpolyethylenglycolether:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

**Propan-2-ol:**

Result : No skin irritation

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**

Remarks : Irritating to skin.

**Serious eye damage/eye irritation****Product:**

Assessment : Causes serious eye damage.  
Method : Calculation method

**Components:****Didecyldimethylammonium chloride:**

Result : Corrosive

**Tridecylpolyethylenglycolether:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Risk of serious damage to eyes.

**Propan-2-ol:**

Result : Causes serious eye irritation.

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**

Remarks : May irritate eyes.

**Respiratory or skin sensitisation****Product:**

Remarks : May cause sensitisation of susceptible persons.

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**Components:****Didecyldimethylammonium chloride:**

Test Type : Buehler Test  
 Species : Guinea pig  
 Result : Did not cause sensitisation on laboratory animals.

**Tridecylpolyethylenglycolether:**

Test Type : Maximisation Test  
 Species : Guinea pig  
 Result : Did not cause sensitisation on laboratory animals.

**Propan-2-ol:**

Test Type : Buehler Test  
 Species : Guinea pig  
 Result : Did not cause sensitisation on laboratory animals.

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**

Remarks : May cause sensitisation of susceptible persons by skin contact.

**Germ cell mutagenicity****Components:****Didecyldimethylammonium chloride:**

Genotoxicity in vitro : 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.

**Tridecylpolyethylenglycolether:**

Genotoxicity in vitro : Result: Not mutagenic in Ames Test

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

**Propan-2-ol:**

Genotoxicity in vitro : Test Type: Ames test  
 Method: Mutagenicity (Escherichia coli - reverse mutation assay)

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Result: Non mutagenic

Genotoxicity in vivo : Species: Mouse  
Method: Mutagenicity (micronucleus test)  
Remarks: Non mutagenic

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB):**

Germ cell mutagenicity- Assessment : No data available

**Carcinogenicity****Components:****Didecyldimethylammonium chloride:**

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

**Tridecylpolyethylenglycolether:**

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

**Propan-2-ol:**

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB):**

Carcinogenicity - Assessment : Limited evidence of a carcinogenic effect.

**Reproductive toxicity****Components:****Didecyldimethylammonium chloride:**

Reproductive toxicity - Assessment : No data available

**Tridecylpolyethylenglycolether:**

Effects on foetal development : Test Type: Two-generation study  
Species: Rat  
Application Route: Dermal  
General Toxicity Maternal: NOAEL: > 250 mg/kg body weight  
Developmental Toxicity: NOAEL F1: > 250 mg/kg body weight  
Embryo-foetal toxicity: NOAEL F2: > 250 mg/kg body weight

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Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

**Propan-2-ol:**

Effects on foetal development : Species: Rat  
Application Route: Oral  
General Toxicity Maternal: NOAEL: 400 mg/kg body weight

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB):**

Reproductive toxicity - Assessment : No data available

**STOT - single exposure****Components:****Didecyldimethylammonium chloride:**

Remarks : No data available

**Tridecylpolyethylenglycoether:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Propan-2-ol:**

||Assessment : May cause drowsiness or dizziness.

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB):**

||Assessment : No data available

**STOT - repeated exposure****Components:****Didecyldimethylammonium chloride:**

Remarks : No data available

**Tridecylpolyethylenglycoether:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Propan-2-ol:**

||Remarks : Based on available data, the classification criteria are not met.

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**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**

Assessment : Causes damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity****Components:****Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**

Remarks : Toxic: danger of serious damage to health by prolonged exposure through inhalation.

**Aspiration toxicity**

No data available

**Further information****Product:**

Remarks : The product has not been tested.

**SECTION 12: Ecological information****12.1 Toxicity****Product:****Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**Components:****Didecyldimethylammonium chloride:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0,19 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,062 mg/l  
Exposure time: 48 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,026 mg/l  
Exposure time: 96 h

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic tox-) : NOEC: 0,032 mg/l

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Exposure time: 34 d  
Species: Pimephales promelas (fathead minnow)  
Method: OECD Test Guideline 210Toxicity 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

**Tridecylpolyethylenglycoether:**

Toxicity to fish

: LC50 (Cyprinus carpio (Carp)): 10 - 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203Toxicity to daphnia and other  
aquatic invertebrates: EC50 (Daphnia magna): 10 - 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae

: EC50 (Desmodesmus subspicatus (green algae)): 1 - 10 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201Toxicity to daphnia and other  
aquatic invertebrates (Chronic  
toxicity): EC10: 2,6 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211**Propan-2-ol:**

Toxicity to fish

: LC50 (Leuciscus idus): > 100 mg/l  
Exposure time: 48 h  
Test Type: static testToxicity to daphnia and other  
aquatic invertebrates: EC50 (Daphnia magna): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae

: EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB):**

Toxicity to fish

: LC50 (Oncorhynchus mykiss): 0,026 mg/l  
Exposure time: 96 hToxicity to daphnia and other  
aquatic invertebrates: (Daphnia magna): 0,09 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

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Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,019 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

**12.2 Persistence and degradability****Product:**

Biodegradability : Result: Readily biodegradable, according to appropriate OECD test.  
Method: OECD 301D / EEC 84/449 C6

**Components:****Didecyldimethylammonium chloride:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD 301B/ ISO 9439/ EEC 84/449 C5

**Tridecylpolyethylenglycolether:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD 301B/ ISO 9439/ EEC 84/449 C5

**Propan-2-ol:**

Biodegradability : Result: Readily biodegradable.

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium monohydrochloride)(PHMB):**

Biodegradability : Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

**12.3 Bioaccumulative potential****Components:****Didecyldimethylammonium chloride:**

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

**Tridecylpolyethylenglycolether:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

**Propan-2-ol:**

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

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Partition coefficient: n- : log Pow: 0,05 (20 °C)  
octanol/water Method: OECD Test Guideline 107

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

**12.4 Mobility in soil****Components:****Didecyldimethylammonium chloride:**

Mobility : Remarks: Mobile in soils

**Tridecylpolyethylenglycolether:**

Mobility : Remarks: Adsorbs on soil., immobile

**Propan-2-ol:**

Mobility : Remarks: Mobile in soils

**Polyhexamethylene biguanide(monomer: 1,5-bis(trimethylen)-guanylguanidinium mono-hydrochloride)(PHMB):**

Mobility : Remarks: After release, adsorbs onto soil.

**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:**

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

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Product : Dispose of the product according to the defined EWC (European Waste Code) No.

Contaminated packaging : Take empty packaging to the recycling plant.



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Waste key for the unused product : European waste catalog (EWC) 070601  
Waste key for the unused product(Group) : Waste material of HZVA from fats, lubricants, soaps, detergents, disinfectants and personal protection products.

## SECTION 14: Transport information

### 14.1 UN number

**IMDG** : UN 3082  
**IATA (Cargo)** : UN 3082

### 14.2 UN proper shipping name

**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Didecyldimethylammonium chloride)  
**IATA (Cargo)** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Didecyldimethylammonium chloride)

### 14.3 Transport hazard class(es)

**IMDG** : 9  
**IATA (Cargo)** : 9

### 14.4 Packing group

**IMDG**  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
**IATA (Cargo)**  
Packing instruction (cargo aircraft) : 964  
Packing group : III  
Labels : Miscellaneous

### 14.5 Environmental hazards

**IMDG**  
Marine pollutant : yes

### 14.6 Special precautions for user

Remarks : Not classified as supporting combustion according to the transport regulations.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.  
For personal protection see section 8.

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Not applicable for product as supplied.

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1 ENVIRONMENTAL HAZARDS

Volatile organic compounds : Volatile organic compounds (VOC) content: < 5 %  
Directive 2010/75/EC on the limitation of emissions of volatile organic compounds**Other regulations:**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

**15.2 Chemical safety assessment**

Exempt&lt;\*\* Phrase language not available: [ EN ] ZASM - ZSM2353 \*\*&gt;

**SECTION 16: Other information****Full text of H-Statements**

H225 : Highly flammable liquid and vapour.  
H301 : Toxic if swallowed.  
H302 : Harmful if swallowed.  
H314 : Causes severe skin burns and eye damage.  
H317 : May cause an allergic skin reaction.  
H318 : Causes serious eye damage.  
H319 : Causes serious eye irritation.  
H330 : Fatal if inhaled.  
H336 : May cause drowsiness or dizziness.  
H351 : Suspected of causing cancer.  
H372 : Causes damage to organs through prolonged or repeated exposure if inhaled.

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**

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**schülke** ->

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Version  
02.04

Revision Date:  
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Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Carc.	:	Carcinogenicity
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Corr.	:	Skin corrosion
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; 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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No. 1272/2008

Acute Tox. 4, H302	:	Calculation method
Skin Corr. 1B, H314	:	Calculation method
Eye Dam. 1, H318	:	Calculation method
Aquatic Acute 1, H400	:	Calculation method
Aquatic Acute 2, H411	:	Calculation method

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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

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