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

1.1 Product identifier

Trade name : pursept® AF

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

Use of the Substance/Mixture : Disinfectants and general biocidal products

Recommended 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.com

E-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 number : UK Poisons Emergency number: 0870 600 6266

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, Sub-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.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

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.

Precautionary statements :
P273 Avoid release to the environment.
P280 Wear protective gloves (e.g. butyl rubber) /protective clothing/eye protection/face protection.
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Hazardous components which must be listed on the label:

7173-51-5	Didecyldimethylammonium chloride
98246-84-5	Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine)

Special labelling of certain mixtures : Labelling according to Regulation (EC) No. 648/2004: (5 - 15 % amphoteric surfactants, < 5 % non-ionic surfactants, perfumes)

Further information : Use biocides safely. Always read the label and product information before use.
The product is classified in accordance with Annex I (2.6.4.5) to Regulation (EC) 1272/2008.

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.
No special risks known.

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)
Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates	98246-84-5 308-757-1 - - - - - -	Acute Tox. 4; H302 Skin Corr. 1C; H314 Aquatic Acute 1; H400; M = 10 Aquatic Chronic 1; H410; M = 1	< 15
Didecyldimethylammonium chloride	7173-51-5 230-525-2 612-131-00-6 01-2119945987-15-XXXX	Acute Tox. 3; H301 Skin Corr. 1B; H314 Aquatic Acute 1; H400; M = 10 Aquatic Chronic 2; H411	12,5
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
Tridecylpolyethylenglycolether	69011-36-5 Polymer - - - - - -	Eye Dam. 1; H318 Aquatic Chronic 3; H412	< 5
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine)	2372-82-9 219-145-8 - - - 01-2119980592-29-XXXX	Acute Tox. 3; H301 Skin Corr. 1B; H314 STOT RE 2; H373 Aquatic Acute 1; H400; M = 10 Aquatic Chronic 1; H410; M = 1	1,5

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.
In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

If inhaled : Move to fresh air.
Call a physician immediately.
No artificial respiration, mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus.

In case of skin contact : Wash off immediately with plenty of water for at least 15

minutes.
Call a physician immediately.

In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Call a physician immediately.

If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Give small amounts of water to drink.
Obtain medical attention.

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 : In case of shortness of breath, give oxygen.
For specialist advice physicians should contact the Poisons Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry powder
Foam
Carbon dioxide (CO2)
Water spray jet

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 : Heating or fire can release toxic gas.

Hazardous combustion products : Carbon dioxide (CO2)
Carbon monoxide
Nitrogen oxides (NOx)
Chlorine compounds

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 : Ensure adequate ventilation.

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.

Advice on protection against fire and explosion : Keep away from heat and sources of ignition.

Hygiene measures : Avoid contact with the skin and the eyes. Do not breathe vapour.

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 in a well-ventilated place.

Advice on common storage : Do not store together with explosives, oxidizing agents, organic peroxides and infectious products.

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
Guanidine, N,N"'-1,3-propanediylbis-, N-	Workers	Inhalation	Long-term systemic effects	0,88 mg/m3

coco alkyl derivatives, diacetates				
	Workers	Skin contact	Long-term systemic effects	1 mg/m3
Propan-2-ol	Workers	Skin contact	Long-term exposure, Systemic effects	888 mg/kg
	Workers	Inhalation	Long-term exposure, Systemic effects	500 mg/m3
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine)	Workers	Inhalation	Long-term systemic effects	2,35 mg/m3
	Workers	Skin contact	Long-term systemic effects	0,91 mg/kg

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

Substance name	Environmental Compartment	Value
Guanidine, N,N"'-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates	Fresh water	0,0004 mg/l
	Marine water	0,00004 mg/l
	Fresh water sediment	10 mg/kg
	Marine sediment	1 mg/kg
	Soil	3,7 mg/kg
	Sewage treatment plant	1 mg/l
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
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine)	Fresh water	0,001 mg/l
	Marine water	0,0001 mg/l
	Fresh water sediment	8,5 mg/kg
	Marine sediment	0,85 mg/kg
	Soil	45,34 mg/kg
	Sewage treatment plant	1,33 mg/l

8.2 Exposure controls

Personal protective equipment

Eye protection : 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 : Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0.11 mm) made by KCL or gloves from other manufacturers offering the same protec-

tion.Prolonged contact: 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.
If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time.

Protective measures : Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	green
Odour	:	odourized
Odour Threshold	:	not determined
pH	:	9 - 10 (20 °C)
Melting point/freezing point	:	No data available
Decomposition temperature		No data available
Boiling point/boiling range	:	ca. 100 °C
Flash point	:	ca. 48 °C Method: DIN 51755 Part 1 Bridging principle "Substantially similar mixtures".
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Vapour density	:	No data available
Relative density	:	ca. 1,0 g/cm3 (20 °C)
Solubility(ies)		
Water solubility	:	in all proportions (20 °C)

Auto-ignition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	ca. 37 mPa*s Method: ISO 3219
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2 Other information

Flammability (liquids)	:	Does not sustain combustion. Remarks: Bridging principle "Substantially similar mixtures".

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	:	No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid	:	Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid	:	Strong acids and strong bases

10.6 Hazardous decomposition products

None reasonably foreseeable.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: 1.160 mg/kg Assessment: Harmful if swallowed.
Acute inhalation toxicity	:	Acute toxicity estimate: > 50 mg/l
Acute dermal toxicity	:	Acute toxicity estimate: > 15.000 mg/kg

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Acute oral toxicity : LD50 (Rat): 500 - 2.000 mg/kg
Method: OECD Test Guideline 401
Assessment: Harmful if swallowed.

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

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

Propan-2-ol:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

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

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

Tridecylpolyethylenglycolether:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: literature value

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: literature value

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Acute oral toxicity : LD50 Oral (Rat): 261 mg/kg
Method: OECD Test Guideline 401
Assessment: Toxic if swallowed.

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

Product:

Assessment : Causes severe skin burns and eye damage.
Method : Calculation method

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Causes severe skin burns and eye damage.

Didecyldimethylammonium chloride:

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

Propan-2-ol:

Result	:	No skin irritation

Tridecylpolyethylenglycolether:

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

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Species	:	Rabbit
Assessment	:	Causes severe burns.
Method	:	OECD Test Guideline 404

Serious eye damage/eye irritation

Product:

Assessment	:	Causes serious eye damage.
Method	:	Calculation method

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Causes serious eye damage.

Didecyldimethylammonium chloride:

Result	:	Corrosive

Propan-2-ol:

Result	:	Causes serious eye irritation.

Tridecylpolyethylenglycolether:

Species	:	Rabbit
Assessment	:	Causes serious eye damage.
Method	:	literature value

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Assessment	:	Causes serious eye damage.

Respiratory or skin sensitisation

Product:

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

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Remarks	:	No data available

Didecyldimethylammonium chloride:

Test Type	:	Buehler 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.

Tridecylpolyethylenglycolether:

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

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

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

Germ cell mutagenicity

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Genotoxicity in vitro	:	Test Type: gene mutation test Method: OECD Test Guideline 476 Result: Non mutagenic
Germ cell mutagenicity- Assessment	:	No data available

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.

Propan-2-ol:

Genotoxicity in vitro	:	Test Type: Ames test Method: Mutagenicity (Escherichia coli - reverse mutation assay) Result: Non mutagenic
Genotoxicity in vivo	:	Species: Mouse Method: Mutagenicity (micronucleus test) Remarks: Non mutagenic
Germ cell mutagenicity- Assessment	:	Not mutagenic in Ames Test

Tridecylpolyethylenglycolether:

Germ cell mutagenicity- Assessment	:	Based on available data, the classification criteria are not met.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Genotoxicity in vitro	:	Method: OECD Test Guideline 471 Result: Not mutagenic in Ames Test
Germ cell mutagenicity- Assessment	:	Not mutagenic in Ames Test

Carcinogenicity

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Carcinogenicity - Assessment	:	No data available

Didecyldimethylammonium chloride:

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

Propan-2-ol:

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

Tridecylpolyethylenglycolether:

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

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

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

Reproductive toxicity

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Reproductive toxicity - Assessment : No data available

Didecyldimethylammonium chloride:

Reproductive toxicity - Assessment : No data available

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.

Tridecylpolyethylenglycolether:

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

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Reproductive toxicity - Assessment : No toxicity to reproduction

STOT - single exposure

Components:

Didecyldimethylammonium chloride:

Remarks : No data available

Propan-2-ol:

Assessment : May cause drowsiness or dizziness.

Tridecylpolyethylenglycolether:

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

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Remarks : No data available

STOT - repeated exposure

Components:

Didecyldimethylammonium chloride:

Remarks : No data available

Propan-2-ol:

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

Tridecylpolyethylenglycolether:

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

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Target Organs : Kidney
Assessment : May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Species : Rat
NOAEL : 30 mg/kg
Application Route : Oral
Exposure time : 28-day
Method : OECD Test Guideline 407

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Species : Rat
NOAEL : 9 mg/kg
Application Route : Oral
Exposure time : 90-day
Method : OECD Test Guideline 408

Aspiration toxicity

No data available

Further information

Product:

Remarks : No data is available on the product itself.

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:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0,707 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,058 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): 0,0197 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC: 0,125 mg/l
Exposure time: 9 d
Species: Danio rerio (zebra fish)
Method: OECD Test Guideline 212

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,025 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

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 toxicity)	:	NOEC: 0,032 mg/l Exposure time: 34 d Species: Pimephales promelas (fathead minnow) 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

Propan-2-ol:

Toxicity to fish	:	LC50 (Leuciscus idus): > 100 mg/l Exposure time: 48 h Test Type: static test
Toxicity 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

Tridecylpolyethylenglycolether:

Toxicity to fish	:	LC50 (Leuciscus idus): 1 - 10 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna): 1 - 10 mg/l Exposure time: 48 h Method: literature value
Toxicity to algae	:	EC50 (algae): 1 - 10 mg/l Exposure time: 72 h Method: literature value
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: > 1 mg/l Species: Daphnia magna (Water flea) Method: literature value

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,45 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,073 mg/l Exposure time: 48 h
Toxicity to algae	:	ErC10 (Desmodesmus subspicatus (green algae)): 0,012 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Selenastrum capricornutum (green algae)): > 0,001 - 0,01 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,024 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity)	:	1

12.2 Persistence and degradability

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Biodegradability	:	Result: Biodegradable Biodegradation: 64 % Exposure time: 28 d Method: OECD Test Guideline 301B

Didecyldimethylammonium chloride:

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

Propan-2-ol:

Biodegradability	:	Result: Readily biodegradable.

Tridecylpolyethylenglycolether:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: > 60 % Exposure time: 28 d Method: OECD 301B/ ISO 9439/ EEC 84/449 C5

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Biodegradability : Result: rapidly biodegradable
Biodegradation: 79 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

12.3 Bioaccumulative potential

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Bioaccumulation : Remarks: No data available

Didecyldimethylammonium chloride:

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

Propan-2-ol:

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

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

Tridecylpolyethylenglycolether:

Bioaccumulation : Remarks: Accumulation in aquatic organisms is unlikely.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: -0,7

12.4 Mobility in soil

Components:

Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates:

Mobility : Remarks: No data available

Didecyldimethylammonium chloride:

Mobility : Remarks: Mobile in soils

Propan-2-ol:

Mobility : Remarks: Mobile in soils

Tridecylpolyethylenglycolether:

Mobility	:	Remarks: Substance does not evaporate from water surface into the atmosphere., Adsorption to solid soil phase is possible.

N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):

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.
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 1903
IATA (Cargo)	:	UN 1903

14.2 UN proper shipping name

IMDG	:	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Didecyldimethylammonium chloride, Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates)
IATA (Cargo)	:	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.

(Didecyldimethylammonium chloride, Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivatives, diacetates)

14.3 Transport hazard class(es)

IMDG	:	8
IATA (Cargo)	:	8

14.4 Packing group

IMDG

Packing group	:	III
Labels	:	8
EmS Code	:	F-A, S-B

IATA (Cargo)

Packing instruction (cargo aircraft)	:	856
Packing group	:	III
Labels	:	Corrosive

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.

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

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:

The surfactant(s) contained in this mixture complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

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.
Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products

15.2 Chemical safety assessment

Exempt

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.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H336	:	May cause drowsiness or dizziness.
H373	:	May cause damage to organs through prolonged or repeated exposure if swallowed.
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.
H412	:	Harmful 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
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Corr.	:	Skin corrosion
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 Chronic 2, H411	:	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.