



## Degragerm 24 Shield

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Version: 01.0

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

#### 1.1 Product identifier

**Trade name:** Degragerm 24 Shield

UFI: D4CG-0181-H00R-CQQQ

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

**Product use:** Hard surface cleaner.  
Surface disinfectant.  
for general surface disinfection  
For professional use only.

**Uses advised against:** Uses other than those identified are not recommended.

#### SWED - Sector-specific worker exposure description :

AISE\_SWED\_PW\_11\_1  
AISE\_SWED\_PW\_19\_1

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

Diversey Europe Operations BV, Maarssenbroeksedijk 2, 3542DN Utrecht, The Netherlands

#### Contact details

Diversey Ltd  
Weston Favell Centre, Northampton NN3 8PD, United Kingdom  
Tel: 01604 405311, Fax: 01604 406809  
Regulatory Email: customerservice.uk@diversey.com

#### 1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)  
For medical or environmental emergency only:  
call 0800 052 0185

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Aquatic Chronic 3 (H412)

#### 2.2 Label elements

##### Hazard statements:

H412 - Harmful to aquatic life with long lasting effects.

#### 2.3 Other hazards

No other hazards known.

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
1-decanamine, N,N-dimethyl-, N-oxide	220-020-5	2605-79-0	01-2119959297-22	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)		0.1-1
alkyl (C12-16) dimethylbenzyl ammonium chloride	270-325-2	68424-85-1	[6]	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 M=10 (H400) Aquatic Chronic 1		0.1-1

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				(H410)	
didecyltrimethylammonium chloride	230-525-2	7173-51-5	[6]	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 M=10 (H400) Aquatic Chronic 2 (H411)	0.1-1
amines, C10-16 alkyltrimethyl-,N-oxides	274-687-2	70592-80-2	-	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)	0.1-1
1-decanamine, N,N-dimethyl-	214-302-7	1120-24-7	-	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 M=100 (H400) Aquatic Chronic 1 (H410)	< 0.01

Workplace exposure limit(s), if available, are listed in subsection 8.1.

ATE, if available, are listed in section 11.

[6] Exempted: biocidal active. See Article 15(2) of Regulation (EC) No 1907/2006.

For the full text of the H and EUH phrases mentioned in this Section, see Section 16..

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### Inhalation:

Get medical attention or advice if you feel unwell.

#### Skin contact:

Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.

#### Eye contact:

Rinse cautiously with water for several minutes. If irritation occurs and persists, get medical attention.

#### Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Get medical attention or advice if you feel unwell.

#### Self-protection of first aider:

Consider personal protective equipment as indicated in subsection 8.2.

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

#### Inhalation:

No known effects or symptoms in normal use.

#### Skin contact:

No known effects or symptoms in normal use.

#### Eye contact:

No known effects or symptoms in normal use.

#### Ingestion:

No known effects or symptoms in normal use.

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

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

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

No special hazards known.

### 5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

## SECTION 6: Accidental release measures

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

No special measures required.

### 6.2 Environmental precautions

Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

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

Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

### 6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Measures to prevent fire and explosions:

No special precautions required.

#### Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

#### Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash hands before breaks and at the end of workday. Do not breathe spray. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

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

Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging. Keep from freezing. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

### 7.3 Specific end use(s)

No specific advice for end use available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Workplace exposure limits

Air limit values, if available:

Biological limit values, if available:

#### Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

### DNEL/DMEL and PNEC values

#### Human exposure

DNEL/DMEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
1-decanamine, N,N-dimethyl-, N-oxide	-	-	-	0.44
alkyl (C12-16) dimethylbenzyl ammonium chloride	-	-	-	3.4
didecyltrimethylammonium chloride	-	-	-	-
amines, C10-16 alkyltrimethyl-,N-oxides	-	-	-	-
1-decanamine, N,N-dimethyl-	No data available	No data available	No data available	No data available

DNEL/DMEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
1-decanamine, N,N-dimethyl-, N-oxide	-	-	-	11
alkyl (C12-16) dimethylbenzyl ammonium chloride	-	-	-	5.7
didecyltrimethylammonium chloride	-	-	-	8.6
amines, C10-16 alkyltrimethyl-,N-oxides	No data available	-	No data available	-
1-decanamine, N,N-dimethyl-	No data available	No data available	No data available	No data available

DNEL/DMEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
1-decanamine, N,N-dimethyl-, N-oxide	-	-	-	5.5
alkyl (C12-16) dimethylbenzyl ammonium chloride	-	-	-	3.4
didecyltrimethylammonium chloride	-	-	-	-
amines, C10-16 alkyltrimethyl-,N-oxides	No data available	-	No data available	-
1-decanamine, N,N-dimethyl-	No data available	No data available	No data available	No data available

DNEL/DMEL inhalatory exposure - Worker (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
1-decanamine, N,N-dimethyl-, N-oxide	-	-	-	6.2
alkyl (C12-16) dimethylbenzyl ammonium chloride	-	-	-	3.96
didecyltrimethylammonium chloride	-	-	-	18.2

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amines, C10-16 alkyldimethyl-,N-oxides	-	-	-	-
1-decanamine, N,N-dimethyl-	No data available	No data available	No data available	No data available

DNEL/DMEL inhalatory exposure - Consumer (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
1-decanamine, N,N-dimethyl-, N-oxide	-	-	-	1.53
alkyl (C12-16) dimethylbenzyl ammonium chloride	-	-	-	1.64
didecyldimethylammonium chloride	-	-	-	-
amines, C10-16 alkyldimethyl-,N-oxides	-	-	-	-
1-decanamine, N,N-dimethyl-	No data available	No data available	No data available	No data available

## Environmental exposure

Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
1-decanamine, N,N-dimethyl-, N-oxide	0.034	0.003	0.034	4.59
alkyl (C12-16) dimethylbenzyl ammonium chloride	0.0009	0.00096	-	0.4
didecyldimethylammonium chloride	0.002	0.0002	0.00029	0.595
amines, C10-16 alkyldimethyl-,N-oxides	-	-	-	-
1-decanamine, N,N-dimethyl-	No data available	No data available	No data available	No data available

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
1-decanamine, N,N-dimethyl-, N-oxide	5.24	0.524	1.02	-
alkyl (C12-16) dimethylbenzyl ammonium chloride	12.27	13.09	7	-
didecyldimethylammonium chloride	2.82	0.282	1.4	-
amines, C10-16 alkyldimethyl-,N-oxides	-	-	-	-
1-decanamine, N,N-dimethyl-	No data available	No data available	No data available	No data available

## 8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.  
If available, please refer to the product information sheet for application and handling instructions.  
Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

**Appropriate engineering controls:** Provide a good standard of general ventilation.  
**Appropriate organisational controls:** No special requirements under normal use conditions.

## REACH use scenarios considered for the undiluted product:

	SWED - Sector-specific worker exposure description	LCS	PROC	Duration (min)	ERC
Trigger spray application	AISE_SWED_PW_11_1	PW	PROC 11	60	ERC8a
Manual application	AISE_SWED_PW_19_1	PW	PROC 19	480	ERC8a

## Personal protective equipment

## Eye / face protection:

Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product (EN 166).

## Hand protection:

No special requirements under normal use conditions.

## Body protection:

No special requirements under normal use conditions.

## Respiratory protection:

Trigger spray bottle application: No special requirements under normal use conditions. Apply technical measures to comply with the occupational exposure limits, if available.

**Environmental exposure controls:** No special requirements under normal use conditions.

## SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

Information in this section refers to the product, unless it is specifically stated that substance data is listed

## Method / remark

**Physical state:** Liquid  
**Colour:** Clear , Colourless  
**Odour:** Product specific

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**Odour threshold:** Not applicable**Melting point/freezing point (°C):** Not determined

Not relevant to classification of this product

**Initial boiling point and boiling range (°C):** Not determined

See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
1-decanamine, N,N-dimethyl-, N-oxide	No data available		
alkyl (C12-16) dimethylbenzyl ammonium chloride	Product decomposes before boiling		
didecyldimethylammonium chloride	110		
amines, C10-16 alkyl dimethyl-, N-oxides	No data available		
1-decanamine, N,N-dimethyl-	No data available		

**Method / remark****Flammability (solid, gas):** Not applicable to liquids**Flammability (liquid):** Not flammable.**Flash point (°C):** > 60 °C

Weight of evidence

**Sustained combustion:** The product does not sustain combustion

Weight of evidence

( UN Manual of Tests and Criteria, section 32, L.2 )

**Lower and upper explosion limit/flammability limit (%):** Not determined

Substance data, flammability or explosive limits, if available:

**Method / remark****Autoignition temperature:** Not determined**Decomposition temperature:** Not applicable.**pH:** ≈ 4 (neat)

ISO 4316

**Kinematic viscosity:** ≈ 5 mPa.s (20 °C)**Solubility in / Miscibility with water:** Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
1-decanamine, N,N-dimethyl-, N-oxide	No data available		
alkyl (C12-16) dimethylbenzyl ammonium chloride	Soluble	OECD 105 (EU A.6)	10
didecyldimethylammonium chloride	No data available		
amines, C10-16 alkyl dimethyl-, N-oxides	No data available		
1-decanamine, N,N-dimethyl-	No data available		

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

**Method / remark****Vapour pressure:** Not determined

See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
1-decanamine, N,N-dimethyl-, N-oxide	No data available		
alkyl (C12-16) dimethylbenzyl ammonium chloride	0.006	OECD 104 (EU A.4)	25
didecyldimethylammonium chloride	No data available		
amines, C10-16 alkyl dimethyl-, N-oxides	No data available		
1-decanamine, N,N-dimethyl-	No data available		

**Method / remark****Relative density:** ≈ 1.00 (20 °C)

OECD 109 (EU A.3)

**Relative vapour density:** -

Not relevant to classification of this product

**Particle characteristics:** No data available.

Not applicable to liquids.

**9.2 Other information****9.2.1 Information with regard to physical hazard classes****Explosive properties:** Not explosive. Vapours may form explosive mixtures with air.**Oxidising properties:** Not oxidising.**Corrosion to metals:** Not corrosive**9.2.2 Other safety characteristics**

No other relevant information available.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

#### 10.2 Chemical stability

Stable under normal storage and use conditions.

#### 10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

#### 10.4 Conditions to avoid

None known under normal storage and use conditions.

#### 10.5 Incompatible materials

None known under normal use conditions.

#### 10.6 Hazardous decomposition products

None known under normal storage and use conditions.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Mixture data:.

#### Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

Substance data, where relevant and available, are listed below:.

#### Acute toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
1-decanamine, N,N-dimethyl-, N-oxide	LD <sub>50</sub>	300-2000	Rat	OECD 423 (EU B.1 tris)		Not established
alkyl (C12-16) dimethylbenzyl ammonium chloride	LD <sub>50</sub>	> 300-2000	Rat	OECD 401 (EU B.1)		Not established
didecyldimethylammonium chloride	LD <sub>50</sub>	238	Rat	Method not given		238
amines, C10-16 alkyl dimethyl-, N-oxides		300-2000				Not established
1-decanamine, N,N-dimethyl-		No data available				Not established

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
1-decanamine, N,N-dimethyl-, N-oxide	LD <sub>50</sub>	> 2000	Rat	OECD 402 (EU B.3)		Not established
alkyl (C12-16) dimethylbenzyl ammonium chloride		No data available				Not established
didecyldimethylammonium chloride		No data available				Not established
amines, C10-16 alkyl dimethyl-, N-oxides		No data available				Not established
1-decanamine, N,N-dimethyl-		No data available				Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
1-decanamine, N,N-dimethyl-, N-oxide		No data available			
alkyl (C12-16) dimethylbenzyl ammonium chloride		No data available			
didecyldimethylammonium chloride		No data available			
amines, C10-16 alkyl dimethyl-, N-oxides		No data available			
1-decanamine, N,N-dimethyl-		No data available			

Acute inhalative toxicity, continued

Ingredient(s)	ATE - inhalation, dust (mg/l)	ATE - inhalation, mist (mg/l)	ATE - inhalation, vapour (mg/l)	ATE - inhalation, gas (mg/l)
1-decanamine, N,N-dimethyl-, N-oxide	Not established	Not established	Not established	Not established

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alkyl (C12-16) dimethylbenzyl ammonium chloride	Not established	Not established	Not established	Not established
didecyldimethylammonium chloride	Not established	Not established	Not established	Not established
amines, C10-16 alkyl dimethyl-, N-oxides	Not established	Not established	Not established	Not established
1-decanamine, N,N-dimethyl-	Not established	Not established	Not established	Not established

**Irritation and corrosivity**

## Skin irritation and corrosivity

<b>Ingredient(s)</b>	<b>Result</b>	<b>Species</b>	<b>Method</b>	<b>Exposure time</b>
1-decanamine, N,N-dimethyl-, N-oxide	Not irritant			
alkyl (C12-16) dimethylbenzyl ammonium chloride	Corrosive	Rabbit		
didecyldimethylammonium chloride	Corrosive	Rabbit	OECD 404 (EU B.4)	
amines, C10-16 alkyl dimethyl-, N-oxides	No data available			
1-decanamine, N,N-dimethyl-	No data available			

## Eye irritation and corrosivity

<b>Ingredient(s)</b>	<b>Result</b>	<b>Species</b>	<b>Method</b>	<b>Exposure time</b>
1-decanamine, N,N-dimethyl-, N-oxide	Severe damage			
alkyl (C12-16) dimethylbenzyl ammonium chloride	Severe damage	Rabbit		
didecyldimethylammonium chloride	Severe damage			
amines, C10-16 alkyl dimethyl-, N-oxides	No data available			
1-decanamine, N,N-dimethyl-	No data available			

## Respiratory tract irritation and corrosivity

<b>Ingredient(s)</b>	<b>Result</b>	<b>Species</b>	<b>Method</b>	<b>Exposure time</b>
1-decanamine, N,N-dimethyl-, N-oxide	No data available			
alkyl (C12-16) dimethylbenzyl ammonium chloride	No data available			
didecyldimethylammonium chloride	No data available			
amines, C10-16 alkyl dimethyl-, N-oxides	No data available			
1-decanamine, N,N-dimethyl-	No data available			

**Sensitisation**

## Sensitisation by skin contact

<b>Ingredient(s)</b>	<b>Result</b>	<b>Species</b>	<b>Method</b>	<b>Exposure time (h)</b>
1-decanamine, N,N-dimethyl-, N-oxide	No data available			
alkyl (C12-16) dimethylbenzyl ammonium chloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
didecyldimethylammonium chloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
amines, C10-16 alkyl dimethyl-, N-oxides	No data available			
1-decanamine, N,N-dimethyl-	No data available			

## Sensitisation by inhalation

<b>Ingredient(s)</b>	<b>Result</b>	<b>Species</b>	<b>Method</b>	<b>Exposure time</b>
1-decanamine, N,N-dimethyl-, N-oxide	No data available			
alkyl (C12-16) dimethylbenzyl ammonium chloride	No data available			
didecyldimethylammonium chloride	No data available			
amines, C10-16 alkyl dimethyl-, N-oxides	No data available			
1-decanamine, N,N-dimethyl-	No data available			

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

## Mutagenicity

<b>Ingredient(s)</b>	<b>Result (in-vitro)</b>	<b>Method (in-vitro)</b>	<b>Result (in-vivo)</b>	<b>Method (in-vivo)</b>
1-decanamine, N,N-dimethyl-, N-oxide	No data available		No data available	
alkyl (C12-16) dimethylbenzyl ammonium chloride	No data available		No data available	
didecyldimethylammonium chloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476	No data available	
amines, C10-16 alkyl dimethyl-, N-oxides	No data available		No data available	
1-decanamine, N,N-dimethyl-	No data available		No data available	

## Carcinogenicity

<b>Ingredient(s)</b>	<b>Effect</b>
1-decanamine, N,N-dimethyl-, N-oxide	No data available
alkyl (C12-16) dimethylbenzyl ammonium chloride	No data available
didecyldimethylammonium chloride	No data available

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amines, C10-16 alkyldimethyl-,N-oxides	No data available
1-decanamine, N,N-dimethyl-	No data available

## Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
1-decanamine, N,N-dimethyl-, N-oxide			No data available				
alkyl (C12-16) dimethylbenzyl ammonium chloride			No data available				
didecyldimethylammonium chloride			No data available				
amines, C10-16 alkyldimethyl-,N-oxides			No data available				
1-decanamine, N,N-dimethyl-			No data available				

## Repeated dose toxicity

## Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
1-decanamine, N,N-dimethyl-, N-oxide		No data available				
alkyl (C12-16) dimethylbenzyl ammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				
amines, C10-16 alkyldimethyl-,N-oxides		No data available				
1-decanamine, N,N-dimethyl-		No data available				

## Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
1-decanamine, N,N-dimethyl-, N-oxide		No data available				
alkyl (C12-16) dimethylbenzyl ammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				
amines, C10-16 alkyldimethyl-,N-oxides		No data available				
1-decanamine, N,N-dimethyl-		No data available				

## Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
1-decanamine, N,N-dimethyl-, N-oxide		No data available				
alkyl (C12-16) dimethylbenzyl ammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				
amines, C10-16 alkyldimethyl-,N-oxides		No data available				
1-decanamine, N,N-dimethyl-		No data available				

## Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
1-decanamine, N,N-dimethyl-, N-oxide			No data available					
alkyl (C12-16) dimethylbenzyl ammonium chloride			No data available					
didecyldimethylammonium chloride			No data available					
amines, C10-16 alkyldimethyl-,N-oxides			No data available					
1-decanamine, N,N-dimethyl-			No data available					

## STOT-single exposure



Ingredient(s)	Affected organ(s)
1-decanamine, N,N-dimethyl-, N-oxide	No data available
alkyl (C12-16) dimethylbenzyl ammonium chloride	No data available
didecyldimethylammonium chloride	No data available
amines, C10-16 alkyl dimethyl-, N-oxides	No data available
1-decanamine, N,N-dimethyl-	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
1-decanamine, N,N-dimethyl-, N-oxide	No data available
alkyl (C12-16) dimethylbenzyl ammonium chloride	No data available
didecyldimethylammonium chloride	No data available
amines, C10-16 alkyl dimethyl-, N-oxides	No data available
1-decanamine, N,N-dimethyl-	No data available

#### Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3.

#### Potential adverse health effects and symptoms

Effects and symptoms related to the product, if any, are listed in subsection 4.2.

#### 11.2 Information on other hazards

##### 11.2.1 Endocrine disrupting properties

Endocrine disrupting properties - Human data, if available:

##### 11.2.2 Other information

No other relevant information available.

## SECTION 12: Ecological information

### 12.1 Toxicity

No data is available on the mixture.

Substance data, where relevant and available, are listed below:

#### Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
1-decanamine, N,N-dimethyl-, N-oxide	LC <sub>50</sub>	31.8	<i>Brachydanio rerio</i>	OECD 203, semi-static	96
alkyl (C12-16) dimethylbenzyl ammonium chloride	LC <sub>50</sub>	> 0.1-1	<i>Lepomis macrochirus</i>	OPP 72-1, static (EPA)	96
didecyldimethylammonium chloride	LC <sub>50</sub>	0.97	<i>Brachydanio rerio</i>	OECD 203 (EU C.1)	96
amines, C10-16 alkyl dimethyl-, N-oxides	LC <sub>50</sub>	2.6-3.5	<i>Pimephales promelas</i>	Method not given	
1-decanamine, N,N-dimethyl-		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
1-decanamine, N,N-dimethyl-, N-oxide		No data available			
alkyl (C12-16) dimethylbenzyl ammonium chloride	EC <sub>50</sub>	> 0.01-0.1	<i>Daphnia magna</i> Straus	OECD 202 (EU C.2)	48
didecyldimethylammonium chloride	EC <sub>50</sub>	0.053	<i>Daphnia magna</i> Straus	OECD 202 (EU C.2)	48
amines, C10-16 alkyl dimethyl-, N-oxides	EC <sub>50</sub>	1-10.8	<i>Daphnia magna</i> Straus		
1-decanamine, N,N-dimethyl-		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
1-decanamine, N,N-dimethyl-, N-oxide		No data available			
alkyl (C12-16) dimethylbenzyl ammonium chloride	EC <sub>50</sub>	> 0.01-0.1	<i>Pseudokirchneriella</i>	OECD 201 (EU C.3)	72

			<i>subcapitata</i>		
didecyldimethylammonium chloride	EC <sub>50</sub>	0.053	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72
amines, C10-16 alkyldimethyl-,N-oxides	EC <sub>50</sub>	0.01-0.4	<i>Selenastrum capricornutum</i>		
1-decanamine, N,N-dimethyl-		No data available			

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
1-decanamine, N,N-dimethyl-, N-oxide		No data available			
alkyl (C12-16) dimethylbenzyl ammonium chloride		No data available			
didecyldimethylammonium chloride		No data available			
amines, C10-16 alkyldimethyl-,N-oxides		No data available			
1-decanamine, N,N-dimethyl-		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
1-decanamine, N,N-dimethyl-, N-oxide		No data available			
alkyl (C12-16) dimethylbenzyl ammonium chloride		No data available			
didecyldimethylammonium chloride		No data available			
amines, C10-16 alkyldimethyl-,N-oxides		No data available			
1-decanamine, N,N-dimethyl-		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
1-decanamine, N,N-dimethyl-, N-oxide		No data available				
alkyl (C12-16) dimethylbenzyl ammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				
amines, C10-16 alkyldimethyl-,N-oxides		No data available				
1-decanamine, N,N-dimethyl-		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
1-decanamine, N,N-dimethyl-, N-oxide		No data available				
alkyl (C12-16) dimethylbenzyl ammonium chloride	NOEC	> 0.01-0.1	<i>Daphnia magna</i>	OECD 211	21 day(s)	
didecyldimethylammonium chloride	NOEC	> 0.01-0.1	<i>Daphnia magna</i>	OECD 211	21 day(s)	
amines, C10-16 alkyldimethyl-,N-oxides		No data available				
1-decanamine, N,N-dimethyl-		No data available				

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
1-decanamine, N,N-dimethyl-, N-oxide		No data available				
alkyl (C12-16) dimethylbenzyl ammonium chloride		No data available				
didecyldimethylammonium chloride		No data available				
amines, C10-16 alkyldimethyl-,N-oxides		No data available				

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1-decanamine, N,N-dimethyl-		No data available				
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**Terrestrial toxicity**

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
didecyldimethylammonium chloride		No data available				

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
didecyldimethylammonium chloride		No data available				

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
didecyldimethylammonium chloride		No data available				

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
didecyldimethylammonium chloride		No data available				

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
didecyldimethylammonium chloride		No data available				

**12.2 Persistence and degradability****Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
didecyldimethylammonium chloride	No data available			

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
didecyldimethylammonium chloride	No data available			

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
didecyldimethylammonium chloride		No data available			

**Biodegradation**

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
1-decanamine, N,N-dimethyl-, N-oxide	Activated sludge, aerobe	DOC reduction	97% in 28 day(s)	OECD 301E	Readily biodegradable
alkyl (C12-16) dimethylbenzyl ammonium chloride	Activated sludge, aerobe	Oxygen depletion	63% in 28 day(s)	OECD 301D	Readily biodegradable
didecyldimethylammonium chloride		Oxygen depletion	> 60%	OECD 301D	Readily biodegradable
amines, C10-16 alkyldimethyl-, N-oxides			63.1% in 26 day(s)	OECD 301B	Inherently biodegradable.
1-decanamine, N,N-dimethyl-	Activated sludge, aerobe	CO <sub>2</sub> production	83% in 28 day(s)	OECD 301B	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT <sub>50</sub>	Method	Evaluation
didecyldimethylammonium chloride					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT <sub>50</sub>	Method	Evaluation
didecyldimethylammonium chloride					No data available

### 12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log K<sub>ow</sub>)

Ingredient(s)	Value	Method	Evaluation	Remark
1-decanamine, N,N-dimethyl-, N-oxide	No data available			
alkyl (C12-16) dimethylbenzyl ammonium chloride	< 3	OECD 107	No bioaccumulation expected	at 20 °C
didecyldimethylammonium chloride	No data available			
amines, C10-16 alkyldimethyl-,N-oxides	No data available			
1-decanamine, N,N-dimethyl-	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
1-decanamine, N,N-dimethyl-, N-oxide	No data available				
alkyl (C12-16) dimethylbenzyl ammonium chloride	No data available				
didecyldimethylammonium chloride	2.1		Method not given	No bioaccumulation expected	
amines, C10-16 alkyldimethyl-,N-oxides	No data available				
1-decanamine, N,N-dimethyl-	No data available				

### 12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K <sub>oc</sub>	Desorption coefficient Log K <sub>oc</sub> (des)	Method	Soil/sediment type	Evaluation
1-decanamine, N,N-dimethyl-, N-oxide	No data available				
alkyl (C12-16) dimethylbenzyl ammonium chloride	No data available				
didecyldimethylammonium chloride	No data available				
amines, C10-16 alkyldimethyl-,N-oxides	No data available				
1-decanamine, N,N-dimethyl-	No data available				

### 12.5 Results of PBT and vPvB assessment

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

### 12.6 Endocrine disrupting properties

Endocrine disrupting properties - Environmental effects, if available:

### 12.7 Other adverse effects

No other adverse effects known.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste from residues / unused products:

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

### Empty packaging

Recommendation:

Dispose of observing national or local regulations.

Suitable cleaning agents:

Water, if necessary with cleaning agent.

## SECTION 14: Transport information

Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

14.1 UN number: Non-dangerous goods

14.2 UN proper shipping name: Non-dangerous goods

14.3 Transport hazard class(es): Non-dangerous goods

14.4 Packing group: Non-dangerous goods

14.5 Environmental hazards: Non-dangerous goods

14.6 Special precautions for user: Non-dangerous goods

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## 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Non-dangerous goods

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

- Regulation (EC) 1907/2006 - REACH (UK amended)
- Regulation (EC) 1272/2008 - CLP (UK amended)
- Regulation (EC) 648/2004 - Detergents regulation (UK amended)
- Biocidal Products Regulations 2001 (SI 2001/880)
- Delegated Regulation (EU) 2017/2100 and Regulation (EU) 2018/605 (UK amended)
- Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- International Maritime Dangerous Goods (IMDG) Code

**Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII):** Not applicable.

**Ingredients according to Detergents Regulation**

non-ionic surfactants, cationic surfactants, EDTA and salts thereof  
disinfectants, Methylisothiazolinone

< 5 %

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents (UK amended). Data to support this assertion are held at the disposal of the competent authorities of the UK and will be made available to them, at their direct request or at the request of a detergent manufacturer.

**Comah - classification:** Not classified

**15.2 Chemical safety assessment**

A chemical safety assessment has not been carried out on the mixture

**SECTION 16: Other information**

*The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract*

**SDS code:** MS1005905

**Version:** 01.0

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**Classification procedure**

The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

**Full text of the H and EUH phrases mentioned in section 3:**

- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- 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.

**Abbreviations and acronyms:**

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- ATE - Acute Toxicity Estimate
- DNEL - Derived No Effect Limit
- EC50 - effective concentration, 50%
- ERC - Environmental release categories
- EUH - CLP Specific hazard statement
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LCS - Life cycle stage
- LD50 - Lethal Dose, 50% / Median Lethal dose
- NOAEL - No observed adverse effect level
- NOEL - No observed effect level
- OECD - Organisation for Economic Cooperation and Development
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- PROC - Process categories
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative

**End of Safety Data Sheet**