



## Viragri Plus VT49

Revision: 2022-02-11

Version: 08.5

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

#### 1.1 Product identifier

**Trade name:** Viragri Plus VT49

UFI: YRN4-409C-0008-YXXJ

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

<b>Product use:</b>	Surface disinfectant. For professional and industrial use only.
<b>Uses advised against:</b>	Uses other than those identified are not recommended.

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

AISE\_SWED\_PW\_1\_1  
AISE\_SWED\_PW\_8a\_1  
AISE\_SWED\_PW\_11\_2  
AISE\_SWED\_PW\_19\_2  
AISE\_SWED\_IS\_4\_1  
AISE\_SWED\_IS\_7\_2  
AISE\_SWED\_IS\_7\_5

#### 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

Skin Corr. 1B (H314)  
Acute Tox. 4 (H332)  
Acute Tox. 4 (H302)  
Eye Dam. 1 (H318)  
Resp. Sens. 1 (H334)  
Skin Sens. 1 (H317)  
Aquatic Acute 1 (H400)  
Aquatic Chronic 2 (H411)  
Met. Corr. 1 (H290)

#### 2.2 Label elements



**Signal word:** Danger.

Contains glutaral (Glutaral), alkyldimethylbenzylammoniumchloride (Cocoalkonium Chloride)

**Hazard statements:**



H302 + H332 - Harmful if swallowed or if inhaled.  
 H314 - Causes severe skin burns and eye damage.  
 H317 - May cause an allergic skin reaction.  
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H410 - Very toxic to aquatic life with long lasting effects.  
 H290 - May be corrosive to metals.

**Precautionary statements:**

P260 - Do not breathe vapours.  
 P280 - Wear protective gloves, protective clothing and eye or face protection.  
 P284 - Wear respiratory protection.  
 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.  
 P310 - Immediately call a POISON CENTRE, doctor or physician.

**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
glutaral	203-856-5	111-30-8	[6]	Acute Tox. 2 (H330) Acute Tox. 3 (H301) Skin Corr. 1B (H314) EUH071 STOT SE 3 (H335) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Resp. Sens. 1 (H334) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)	[11]	10-20
alkyldimethylbenzylammoniumchloride	270-325-2	68424-85-1	[6]	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Eye Dam. 1 (H318) Aquatic Acute 1 M=10 (H400) Aquatic Chronic 1 (H410)		3-10
tetrasodium ethylene diamine tetraacetate	200-573-9	64-02-8	01-2119486762-27	Acute Tox. 4 (H302) Acute Tox. 4 (H332) STOT RE 2 (H373) Eye Dam. 1 (H318)		1-3
didecyldimethylammonium chloride	230-525-2	7173-51-5	[6]	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Eye Dam. 1 (H318) Aquatic Acute 1 M=10 (H400) Aquatic Chronic 2 (H411)		1-3
phosphoric acid	231-633-2	7664-38-2	01-2119485924-24	Skin Corr. 1B (H314) Eye Dam. 1 (H318) Met. Corr. 1 (H290)		1-3
d-limonene	227-813-5	5989-27-5	01-2119529223-47	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)		0.1-1

**Specific concentration limits**

glutaral:

- STOT SE 3 (H335) >= 0.5%
- EUH071 >= 5%

phosphoric acid:

- Eye Dam. 1 (H318) >= 25% > Eye Irrit. 2 (H319) >= 10%
- Skin Corr. 1B (H314) >= 25% > Skin Irrit. 2 (H315) >= 10%

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.



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[11] Substance of Very High Concern (SVHC).

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

#### General Information:

Symptoms of intoxication may even occur after several hours. It is recommended to continue medical observation for at least 48 hours after the incident. If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTRE, doctor or physician.

#### Inhalation:

#### Skin contact:

Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician.

#### Eye contact:

Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

#### Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

#### 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:

May cause allergy or asthma symptoms or breathing difficulties. Corrosive to the respiratory tract.

#### Skin contact:

Causes severe burns. May cause an allergic skin reaction.

#### Eye contact:

Causes severe or permanent damage.

#### Ingestion:

Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

### 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

Ensure adequate ventilation. Do not breathe dust or vapour. Wear suitable protective clothing. Wear eye/face protection. Wear suitable gloves.

### 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

Ensure adequate ventilation. 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 face, hands and any exposed skin thoroughly after handling. Take off immediately all



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contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Do not breathe vapours. Do not breathe spray. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. 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.

Comah - Lower Tier requirements (tonnes): 100

Comah - Upper Tier requirements (tonnes): 200

### 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:

Ingredient(s)	UK - Long term value(s)	UK - Short term value(s)
glutaral	0.05 ppm 0.2 mg/m <sup>3</sup>	0.05 ppm 0.2 mg/m <sup>3</sup>
phosphoric acid	1 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>

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
glutaral	-	-	-	0.07
alkyldimethylbenzylammoniumchloride	-	-	-	3.4
tetrasodium ethylene diamine tetraacetate	-	-	-	25
didecyldimethylammonium chloride	-	-	-	-
phosphoric acid	-	-	-	-
d-limonene	-	-	-	4.76

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)
glutaral	No data available	-	No data available	-
alkyldimethylbenzylammoniumchloride	-	-	-	5.7
tetrasodium ethylene diamine tetraacetate	-	-	-	-
didecyldimethylammonium chloride	-	-	-	8.6
phosphoric acid	No data available	-	No data available	-
d-limonene	0.222 mg/cm <sup>2</sup> skin	-	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)
glutaral	No data available	-	No data available	-
alkyldimethylbenzylammoniumchloride	-	-	-	3.4
tetrasodium ethylene diamine tetraacetate	-	-	-	-
didecyldimethylammonium chloride	-	-	-	-
phosphoric acid	No data available	-	No data available	-
d-limonene	0.111 mg/cm <sup>2</sup> skin	-	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
glutaral	-	-	0.0106	-
alkyldimethylbenzylammoniumchloride	-	-	-	3.96
tetrasodium ethylene diamine tetraacetate	3	3	1.5	1.5



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didecyldimethylammonium chloride	-	-	-	18.2
phosphoric acid	-	-	2.92	1
d-limonene	-	-	-	33.3

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
glutaral	-	-	-	-
alkyldimethylbenzylammoniumchloride	-	-	-	1.64
tetrasodium ethylene diamine tetraacetate	1.2	1.2	0.6	-
didecyldimethylammonium chloride	-	-	-	-
phosphoric acid	-	-	0.73	-
d-limonene	-	-	-	8.33

## 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)
glutaral	0.0025	0.00025	0.006	0.8
alkyldimethylbenzylammoniumchloride	0.0009	0.00096	0.00016	0.4
tetrasodium ethylene diamine tetraacetate	2.2	0.22	1.2	43
didecyldimethylammonium chloride	0.002	0.0002	0.00029	0.595
phosphoric acid	-	-	-	-
d-limonene	0.014	0.0014	-	1.8

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
glutaral	0.091	0.0009	0.03	-
alkyldimethylbenzylammoniumchloride	12.27	13.09	7	-
tetrasodium ethylene diamine tetraacetate	-	-	0.72	-
didecyldimethylammonium chloride	2.82	0.282	1.4	-
phosphoric acid	-	-	-	-
d-limonene	3.85	0.385	0.763	-

## 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:** If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.

**Appropriate organisational controls:** Avoid direct contact and/or splashes where possible. Train personnel.

## REACH use scenarios considered for the undiluted product:

	SWED - Sector-specific worker exposure description	LCS	PROC	Duration (min)	ERC
Manual transfer and dilution	AISE_SWED_PW_8a_1	PW	PROC 8a	60	ERC8a
Manual transfer and dilution	AISE_SWED_PW_1_1	PW	PROC 1	60	ERC8a

## Personal protective equipment

## Eye / face protection:

Safety glasses or goggles (EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

## Hand protection:

Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm

Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

## Body protection:

No special requirements under normal use conditions. Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

## Respiratory protection:

Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided.



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**Environmental exposure controls:** Should not reach sewage water or drainage ditch undiluted or unneutralised.

*Recommended safety measures for handling the diluted product:*

**Recommended maximum concentration (% w/w):** 3.3

**Appropriate engineering controls:** Provide a good standard of general ventilation.

**Appropriate organisational controls:** Avoid direct contact and/or splashes where possible. Train personnel. Employees and/or livestock should not be present in the treated facility during fogging. Before reentry of the treated facilities without respiratory protection, wait for at least 10 hours after fogging and at least 4 hours after spraying.

**REACH use scenarios considered for the diluted product:**

	SWED	LCS	PROC	Duration (min)	ERC
Automatic application in a dedicated system	AISE_SWED_IS_4_1	IS	PROC 4	480	ERC8a
Fogging	AISE_SWED_IS_7_2	IS	PROC 7	480	ERC4
Spray application	AISE_SWED_IS_7_5				
Spray application	AISE_SWED_PW_11_2	PW	PROC 11	60	ERC8a
Manual application	AISE_SWED_PW_19_2	PW	PROC 19	480	ERC8a

**Personal protective equipment**

**Eye / face protection:**

**Hand protection:**

No special requirements under normal use conditions.

Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact: Material: butyl rubber Penetration time:  $\geq 480$  min Material thickness:  $\geq 0.7$  mm

Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time:  $\geq 30$  min Material thickness:  $\geq 0.4$  mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

**Body protection:**

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

**Respiratory protection:**

Spraying/fogging by machine application: If exposure to liquid particles cannot be avoided use: full-face mask (EN 136) with filter type A2P3 (EN 14387) or self-contained or compressed air breathing apparatus (EN 137 / EN 138) Consider specific local use conditions. In consultation with the supplier of respiratory protection equipment a different type providing similar protection may be chosen.

**Environmental exposure controls:** Should not reach sewage water or drainage ditch undiluted.

## 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
<b>Physical state:</b> Liquid	
<b>Colour:</b> Clear , from Colourless to Yellow	
<b>Odour:</b> Product specific	
<b>Odour threshold:</b> Not applicable	
<b>Melting point/freezing point (°C):</b> Not determined	Not relevant to classification of this product
<b>Initial boiling point and boiling range (°C):</b> Not determined	See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
glutaral	101.5	Method not given	987.1
alkyldimethylbenzylammoniumchloride	> 107	Method not given	
tetrasodium ethylene diamine tetraacetate	No data available	Non-experimental data	
didecyldimethylammonium chloride	110		
phosphoric acid	158	Method not given	1013
d-limonene	175-178	Weight of evidence	1013

	Method / remark
<b>Flammability (solid, gas):</b> Not applicable to liquids	
<b>Flammability (liquid):</b> Not flammable.	
<b>Flash point (°C):</b> > 100 °C	closed cup
<b>Sustained combustion:</b> Not applicable.	



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

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

See substance data

Substance data, flammability or explosive limits, if available:

Ingredient(s)	Lower limit (% vol)	Upper limit (% vol)
alkyldimethylbenzylammoniumchloride	-	-
d-limonene	0.7	6.1

**Method / remark****Autoignition temperature:** Not determined**Decomposition temperature:** Not applicable.**pH:** ≈ 5 (neat)**Dilution pH:** ≈ 5 (3.3 %)**Kinematic viscosity:** ≈ 10 mPa.s (20 °C)**Solubility in / Miscibility with Water:** Fully miscible

ISO 4316

ISO 4316

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
glutaral	Soluble	Method not given	20
alkyldimethylbenzylammoniumchloride	Soluble	Method not given	
tetrasodium ethylene diamine tetraacetate	500	Method not given	20
didecyldimethylammonium chloride	No data available		
phosphoric acid	Soluble		
d-limonene	Insoluble	Method not given	20

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)
glutaral	2000	Method not given	20.1
alkyldimethylbenzylammoniumchloride	2300	Method not given	20
tetrasodium ethylene diamine tetraacetate	0.0000000002	Read across	25
didecyldimethylammonium chloride	No data available		
phosphoric acid	4	Method not given	20
d-limonene	190-230	Method not given	20

**Method / remark****Relative density:** ≈ 1.04 (20 °C)**Relative vapour density:** No data available.**Particle characteristics:** No data available.

OECD 109 (EU A.3)

Not relevant to classification of this product

Not applicable to liquids.

**9.2 Other information****9.2.1 Information with regard to physical hazard classes****Explosive properties:** Not explosive.**Oxidising properties:** Not oxidising.**Corrosion to metals:** Corrosive

Weight of evidence

**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**



May be corrosive to metals.

#### 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

ATE - Dermal (mg/kg): >2000

ATE - Inhalatory, mists (mg/l): >1

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)
glutaral	LD <sub>50</sub>	77	Rat	OECD 401 (EU B.1)		1000
alkyldimethylbenzylammoniumchloride	LD <sub>50</sub>	304.5	Rat			3800
tetrasodium ethylene diamine tetraacetate	LD <sub>50</sub>	1780	Rat	OECD 401 (EU B.1)		21000
didecyldimethylammonium chloride	LD <sub>50</sub>	238	Rat	Method not given		15000
phosphoric acid	LD <sub>50</sub>	> 300-5000	Rat	OECD 423 (EU B.1 tris)		Not established
d-limonene	LD <sub>50</sub>	4400 - 5100	Rat	Method not given		910000

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
glutaral	LD <sub>50</sub>	> 1000	Rabbit	OECD 402 (EU B.3)		Not established
alkyldimethylbenzylammoniumchloride	LD <sub>50</sub>	3412	Rabbit	Method not given		13000
tetrasodium ethylene diamine tetraacetate	LD <sub>50</sub>	> 5000	Rabbit	Method not given		Not established
didecyldimethylammonium chloride		No data available				73000
phosphoric acid	LD <sub>50</sub>	2740	Rabbit	Method not given		Not established
d-limonene	LD <sub>50</sub>	> 5000	Rabbit	Method not given		Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
glutaral	LC <sub>50</sub>	0.28-0.39 (mist)	Rat	OECD 403 (EU B.2)	4
alkyldimethylbenzylammoniumchloride		No data available			
tetrasodium ethylene diamine tetraacetate	LC <sub>50</sub>	≥ 1-5 (dust)	Rat	OECD 403 (EU B.2)	6
didecyldimethylammonium chloride		No data available			
phosphoric acid	LC <sub>50</sub>	850	Rat	Method not given	2
d-limonene		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)
glutaral	Not established	0.33	Not established	Not established
alkyldimethylbenzylammoniumchloride	Not established	Not established	Not established	Not established
tetrasodium ethylene diamine tetraacetate	Not established	25	Not established	Not established
didecyldimethylammonium chloride	Not established	Not established	Not established	Not established
phosphoric acid	Not established	Not established	Not established	Not established
d-limonene	Not established	Not established	Not established	Not established

#### Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
glutaral	Corrosive	Rabbit	OECD 404 (EU B.4)	



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alkyldimethylbenzylammoniumchloride	Corrosive	Rabbit	Method not given	
tetrasodium ethylene diamine tetraacetate	Not irritant	Rabbit	OECD 404 (EU B.4)	
didecyldimethylammonium chloride	Corrosive	Rabbit	OECD 404 (EU B.4)	
phosphoric acid	Corrosive	Rabbit	OECD 404 (EU B.4)	
d-limonene	Irritant	Rabbit	Method not given	

## Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
glutaral	Severe damage	Rabbit	OECD 405 (EU B.5)	
alkyldimethylbenzylammoniumchloride	Severe damage		Method not given	
tetrasodium ethylene diamine tetraacetate	Severe damage		Method not given	
didecyldimethylammonium chloride	Severe damage			
phosphoric acid	Severe damage	Rabbit	Method not given	
d-limonene	No data available			

## Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
glutaral	No data available			
alkyldimethylbenzylammoniumchloride	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
didecyldimethylammonium chloride	No data available			
phosphoric acid	No data available			
d-limonene	No data available			

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
glutaral	Sensitising	Guinea pig	Method not given	
alkyldimethylbenzylammoniumchloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
tetrasodium ethylene diamine tetraacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
didecyldimethylammonium chloride	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
phosphoric acid	Not sensitising	Human	Human experience	
d-limonene	Sensitising	Guinea pig	Method not given	

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
glutaral	No data available			
alkyldimethylbenzylammoniumchloride	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
didecyldimethylammonium chloride	No data available			
phosphoric acid	No data available			
d-limonene	No data available			

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

## Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
glutaral	Mutagenic	Method not given	No evidence for mutagenicity, negative test results	Method not given
alkyldimethylbenzylammoniumchloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 476 OECD 473	No evidence of genotoxicity, negative test results	OECD 474 (EU B.12)
tetrasodium ethylene diamine tetraacetate	No evidence for mutagenicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
didecyldimethylammonium chloride	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476	No data available	
phosphoric acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Mouse lymphoma)	No data available	
d-limonene	No data available		No data available	

## Carcinogenicity

Ingredient(s)	Effect
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glutaral	No evidence for carcinogenicity, negative test results
alkyldimethylbenzylammoniumchloride	No data available
tetrasodium ethylene diamine tetraacetate	No evidence for carcinogenicity, weight-of-evidence
didecyldimethylammonium chloride	No data available
phosphoric acid	No data available
d-limonene	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
glutaral			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity
alkyldimethylbenzylammoniumchloride			No data available				
tetrasodium ethylene diamine tetraacetate			No data available				No evidence for reproductive toxicity
didecyldimethylammonium chloride			No data available				
phosphoric acid	NOAEL	Developmental toxicity	410	Rat	OECD 422, oral	10 day(s)	No evidence for reproductive toxicity No evidence for developmental toxicity
d-limonene			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
glutaral		No data available				
alkyldimethylbenzylammoniumchloride		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
didecyldimethylammonium chloride		No data available				
phosphoric acid	NOAEL	250	Rat	OECD 422, oral		
d-limonene		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
glutaral		No data available				
alkyldimethylbenzylammoniumchloride		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
didecyldimethylammonium chloride		No data available				
phosphoric acid		No data available				
d-limonene		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
glutaral		No data available				
alkyldimethylbenzylammoniumchloride		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
didecyldimethylammonium chloride		No data available				
phosphoric acid		No data available				
d-limonene		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
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glutaral			No data available				
alkyldimethylbenzylammoniumchloride			No data available				
tetrasodium ethylene diamine tetraacetate			No data available				
didecyldimethylammonium chloride			No data available				
phosphoric acid			No data available				
d-limonene			No data available				

## STOT-single exposure

Ingredient(s)	Affected organ(s)
glutaral	Respiratory tract
alkyldimethylbenzylammoniumchloride	No data available
tetrasodium ethylene diamine tetraacetate	No data available
didecyldimethylammonium chloride	No data available
phosphoric acid	No data available
d-limonene	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
glutaral	Respiratory tract
alkyldimethylbenzylammoniumchloride	No data available
tetrasodium ethylene diamine tetraacetate	Respiratory tract
didecyldimethylammonium chloride	No data available
phosphoric acid	No data available
d-limonene	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)
glutaral	LC <sub>50</sub>	0.8	<i>Oncorhynchus mykiss</i>	OECD 203, static	96
alkyldimethylbenzylammoniumchloride	LC <sub>50</sub>	0.515	<i>Fish</i>	Method not given	96
tetrasodium ethylene diamine tetraacetate	LC <sub>50</sub>	> 100	<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
phosphoric acid	LC <sub>50</sub>	138	<i>Gambusia affinis</i>	Method not given	96
d-limonene	LC <sub>50</sub>	0.72	<i>Pimephales promelas</i>	OECD 203 (EU C.1)	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
glutaral	LC <sub>50</sub>	0.345	<i>Daphnia</i>	Method not given	48



			<i>magna Straus</i>		
alkyldimethylbenzylammoniumchloride	EC <sub>50</sub>	0.016	<i>Daphnia</i>	Method not given	48
tetrasodium ethylene diamine tetraacetate	EC <sub>50</sub>	140	<i>Daphnia magna Straus</i>	DIN 38412, Part 11	48
didecyldimethylammonium chloride	EC <sub>50</sub>	0.053	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
phosphoric acid	EC <sub>50</sub>	> 100	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
d-limonene	EC <sub>50</sub>	0.36	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48

## Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
glutaral	EC <sub>50</sub>	0.6	<i>Desmodesmus subspicatus</i>	OECD 201, static	72
alkyldimethylbenzylammoniumchloride	EC <sub>50</sub>	0.02	<i>Selenastrum capricornutum</i>	OECD 201 (EU C.3)	72
tetrasodium ethylene diamine tetraacetate	EC <sub>50</sub>	> 100	<i>Scenedesmus obliquus</i>	88/302/EEC, Part C, static	72
didecyldimethylammonium chloride	EC <sub>50</sub>	0.053	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72
phosphoric acid	EC <sub>50</sub>	> 100	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72
d-limonene	E <sub>r</sub> C <sub>50</sub>	150	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72

## Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
glutaral		No data available			
alkyldimethylbenzylammoniumchloride		No data available			
tetrasodium ethylene diamine tetraacetate		No data available			
didecyldimethylammonium chloride		No data available			
phosphoric acid		No data available			
d-limonene		No data available			

## Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
glutaral	EC <sub>20</sub>	15	<i>Activated sludge</i>	OECD 209	30 minute(s)
alkyldimethylbenzylammoniumchloride	EC <sub>20</sub>	5	<i>Activated sludge</i>	OECD 209	0.5 hour(s)
tetrasodium ethylene diamine tetraacetate	EC <sub>20</sub>	> 500	<i>Activated sludge</i>	OECD 209	0.5 hour(s)
didecyldimethylammonium chloride		No data available			
phosphoric acid	EC <sub>50</sub>	270	<i>Activated sludge</i>	Method not given	
d-limonene		No data available			

## Aquatic long-term toxicity

## Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
glutaral	NOEC	1.6	<i>Oncorhynchus mykiss</i>	Method not given	97 day(s)	
alkyldimethylbenzylammoniumchloride		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	> 25.7	<i>Brachydanio rerio</i>	OECD 210	35 day(s)	
didecyldimethylammonium chloride		No data available				
phosphoric acid		No data available				
d-limonene		No data available				

## Aquatic long-term toxicity - crustacea



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Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
glutaral	NOEC	5.0	<i>Daphnia magna</i>	OECD 211, semi-static	21 day(s)	
alkyldimethylbenzylammoniumchloride	NOEC	0.025	<i>Daphnia magna</i>	OECD 211	21 day(s)	
tetrasodium ethylene diamine tetraacetate	NOEC	25	<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)	
phosphoric acid		No data available				
d-limonene		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
glutaral		No data available				
alkyldimethylbenzylammoniumchloride		No data available				
tetrasodium ethylene diamine tetraacetate		No data available				
didecyldimethylammonium chloride		No data available				
phosphoric acid		No data available				
d-limonene		No data available				

**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
alkyldimethylbenzylammoniumchloride		No data available				
tetrasodium ethylene diamine tetraacetate	LD <sub>50</sub>	156	<i>Eisenia fetida</i>	OECD 207	14	
didecyldimethylammonium chloride		No data available				
phosphoric acid		No data available				

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyldimethylbenzylammoniumchloride		No data available				
tetrasodium ethylene diamine tetraacetate	NOEC	0.25 - 1.25			21	
didecyldimethylammonium chloride		No data available				
phosphoric acid		No data available				

Terrestrial toxicity - birds, if available:

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

Terrestrial toxicity - beneficial insects, if available:

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



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Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyldimethylbenzylammoniumchloride		No data available				
didecyldimethylammonium chloride		No data available				
phosphoric acid		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
alkyldimethylbenzylammoniumchloride	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
didecyldimethylammonium chloride	No data available			
phosphoric acid	No data available			

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
alkyldimethylbenzylammoniumchloride	No data available			
tetrasodium ethylene diamine tetraacetate	No data available			
didecyldimethylammonium chloride	No data available			
phosphoric acid	No data available			

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
alkyldimethylbenzylammoniumchloride		No data available			
tetrasodium ethylene diamine tetraacetate		No data available			
didecyldimethylammonium chloride		No data available			
phosphoric acid		No data available			

## Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
glutaral	Activated sludge, aerobe	DOC reduction	90 - 100 % in 28 day(s)	OECD 301A	Readily biodegradable
alkyldimethylbenzylammoniumchloride		Oxygen depletion	> 60%	Read across	Readily biodegradable
tetrasodium ethylene diamine tetraacetate				Weight of evidence	Not readily biodegradable.
didecyldimethylammonium chloride		Oxygen depletion	> 60%	OECD 301D	Readily biodegradable
phosphoric acid					Not applicable (inorganic substance)
d-limonene			80 % in 28 day(s)	OECD 301D	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT <sub>50</sub>	Method	Evaluation
alkyldimethylbenzylammoniumchloride					No data available
tetrasodium ethylene diamine tetraacetate					No data available
didecyldimethylammonium chloride					No data available
phosphoric acid					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT <sub>50</sub>	Method	Evaluation
alkyldimethylbenzylammoniumchloride					No data available
tetrasodium ethylene diamine tetraacetate					No data available
didecyldimethylammonium chloride					No data available
phosphoric acid					No data available



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**12.3 Bioaccumulative potential**

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
glutaral	-0.36	(EC) 440/2008, A.8	No bioaccumulation expected	
alkyldimethylbenzylammoniumchloride	2.88	OECD 107	No bioaccumulation expected	
tetrasodium ethylene diamine tetraacetate	-13	Method not given	No bioaccumulation expected	
didecyldimethylammonium chloride	No data available			
phosphoric acid	No data available		No bioaccumulation expected	
d-limonene	No data available		High potential for bioaccumulation	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
glutaral	No data available				
alkyldimethylbenzylammoniumchloride	0.5		Method not given	No bioaccumulation expected	
tetrasodium ethylene diamine tetraacetate	1.8	<i>Lepomis macrochirus</i>	Method not given	Low potential for bioaccumulation	
didecyldimethylammonium chloride	2.1		Method not given	No bioaccumulation expected	
phosphoric acid	No data available			No bioaccumulation expected	
d-limonene	683.1		Method not given	High potential for bioaccumulation	

**12.4 Mobility in soil**

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
glutaral	2.51		Method not given		Potential for adsorption to soil
alkyldimethylbenzylammoniumchloride	No data available				
tetrasodium ethylene diamine tetraacetate	No data available				Adsorption to solid soil phase is not expected
didecyldimethylammonium chloride	No data available				
phosphoric acid	No data available				Potential for mobility in soil, soluble in water
d-limonene	No data available				High potential for mobility in soil

**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:****European Waste Catalogue:**

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.

16 03 05\* - organic wastes containing dangerous substances.

**SECTION 14: Transport information****Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)****14.1 UN number:** 3265**14.2 UN proper shipping name:**



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Corrosive liquid, acidic, organic, n.o.s. ( glutaral )

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

Transport hazard class (and subsidiary risks): 8

**14.4 Packing group:** III**14.5 Environmental hazards:**

Environmentally hazardous: Yes

Marine pollutant: Yes

**14.6 Special precautions for user:** None known.**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** The product is not transported in bulk tankers.**Other relevant information:****ADR**

Classification code: C3

Tunnel restriction code: E

Hazard identification number: 80

**IMO/IMDG**

EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

**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)
- 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.

**Comah - classification:** E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

**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:** MSDS3888

**Version:** 08.5

**Revision:** 2022-02-11

**Reason for revision:**

This data sheet contains changes from the previous version in section(s): 1, 4, 6, 7, 8, 9, 10, 15, 16, Overall design adjusted in accordance with Amendment 2020/878, Annex II of Regulation (EC) No 1907/2006

**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:**

- H226 - Flammable liquid and vapour.
- H290 - May be corrosive to metals.
- H301 - Toxic if swallowed.
- H302 - Harmful if swallowed.
- H304 - May be fatal if swallowed and enters airways.
- H312 - Harmful in contact with skin.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H330 - Fatal if inhaled.
- H331 - Toxic if inhaled.
- H332 - Harmful if inhaled.
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.



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- H335 - May cause respiratory irritation.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- 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.
- EUH071 - Corrosive to the respiratory tract.

**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**