

## Persil 3 in 1 Capsules Bio Professional

Revision: 2024-12-22

Version: 01.0

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

#### 1.1 Product identifier

**Trade name:** Persil 3 in 1 Capsules Bio Professional

*Persil is a registered trade mark and is used under licence of Unilever*

UFI: P7RK-H12X-E00G-0JYP

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

**Product use:** Laundry detergent.

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

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

AISE\_SWED\_PW\_8a\_1

PC35-Washing and cleaning products

AISE\_SWED\_PW\_1\_1

AISE\_SWED\_PW\_4\_1

AISE\_SWED\_PW\_19\_1

PC35-Washing and cleaning products

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

Diversey Europe Operations BV, De Corridor 4, 3621ZB Breukelen [Maarssebroeksedijk 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@solenis.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 irritation, Category 2 (H315)

Eye irritation, Category 2 (H319)

Chronic aquatic toxicity, Category 3 (H412)

#### 2.2 Label elements



**Signal word:** Warning.

Contains isoeugenol (Isoeugenol), subtilisin (Subtilisin), 1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one (Delta-Damascone), dodecanal (Lauraldehyde), 2-methylundecanal (Methylundecanal)

#### Hazard statements:

H315 + H319 - Causes skin and serious eye irritation.

H412 - Harmful to aquatic life with long lasting effects.

EUH208 - May produce an allergic reaction.

#### Precautionary statements:

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P501 - Dispose of unused content as chemical waste.

## Persil 3 in 1 Capsules Bio Professional

**2.3 Other hazards**

Concentrated enzymatic liquid products are dust free preparations. However, inappropriate handling may cause formation of dust or aerosols which may induce sensitization and may cause allergic reactions in sensitized individuals.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
glycerol	200-289-5	56-81-5	01-211947198 7-18	Not classified as hazardous		20-30
monoethanolamine alkylbenzenesulphonate	287-335-8	85480-55-3	[1]	Acute toxicity - Oral, Category 4 (H302) Skin irritation, Category 2 (H315) Serious eye damage, Category 1 (H318) Chronic aquatic toxicity, Category 3 (H412)		10-20
C12-14 alcohols, ethoxylated (7EO)	[4]	68439-50-9	[4]	Acute toxicity - Oral, Category 4 (H302) Serious eye damage, Category 1 (H318) Chronic aquatic toxicity, Category 3 (H412)		10-20
subtilisin	232-752-2	9014-01-1	01-211948043 4-38	Acute toxicity - Oral, Category 4 (H302) Specific target organ toxicity - Single exposure, Category 3 (H335) Skin irritation, Category 2 (H315) Serious eye damage, Category 1 (H318) Respiratory sensitisation, Category 1 (H334) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 2 (H411)		0.1-1
dodecanal	203-983-6	112-54-9	01-211996944 1-33	Skin irritation, Category 2 (H315) Skin sensitisation, Sub-category 1B (H317) Chronic aquatic toxicity, Category 2 (H411)		0.1-1
2-methylundecanal	203-765-0	110-41-8	01-211996944 3-29	Skin irritation, Category 2 (H315) Skin sensitisation, Sub-category 1B (H317) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 1 M=1 (H410) Chronic aquatic toxicity, Category 3 (H412)		0.1-1
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	260-709-8	57378-68-4	01-211953512 2-53	Acute toxicity - Oral, Category 4 (H302) Skin irritation, Category 2 (H315) Skin sensitisation, Sub-category 1A (H317) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 1 M=1 (H410)		0.01-0.1
glutaraldehyde	203-856-5	111-30-8	[6]	Acute toxicity - Inhalation, Category 2 (H330) Acute toxicity - Oral, Category 3 (H301) Skin corrosion, Category 1B (H314) EUH071 Specific target organ toxicity - Single exposure, Category 3 (H335) Serious eye damage, Category 1 (H318) Skin sensitisation, Sub-category 1A (H317) Respiratory sensitisation, Category 1 (H334) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 2 (H411)		< 0.01
isoeugenol	202-590-7	97-54-1	01-212022368 2-61	Skin sensitisation, Sub-category 1A (H317)		< 0.01

**Specific concentration limits**

isoeugenol:

- Skin sensitisation, Category 1 (H317)  $\geq$  0.01%

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

ATE, if available, are listed in section 11.

[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.

[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.

[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****General Information:**

If medical advice is needed, have product container or label at hand.

**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:**

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. If irritation occurs and persists, get

**Persil 3 in 1 Capsules Bio Professional**

**Ingestion:** medical attention.  
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:** Inappropriate handling may cause formation of dust or aerosols which may induce sensitization and may cause allergic reactions in sensitized individuals.

**Skin contact:** Causes irritation.

**Eye contact:** Causes severe irritation.

**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**

Repeated or prolonged contact: 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**

Dyke to collect large liquid spills. Warning: concentrated enzymatic product. Spillages should be removed immediately to avoid formation of dust from dried product. Use a cloth wetted with a chlorine bleach to clean up product spillage. Flush remainder carefully with plenty of water. Avoid splashing and high pressure washing (do not remove product spillage in procedures likely to give rise to aerosols).

**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 to prevent aerosol and dust generation:**

Do not apply via trigger spray or other device which creates aerosols.

**Measures required to protect the environment:**

For environmental exposure controls see subsection 8.2.

**Advice on general occupational hygiene:**

Follow general hygiene considerations recognised as common good workplace practices. Keep away from food, drink and animal feeding stuffs. Keep out of reach of children. Do not mix with other products unless advised by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. 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 out of reach of children.

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:

Ingredient(s)	UK - Long term value(s)	UK - Short term value(s)
glycerol	10 mg/m <sup>3</sup> mist	30 mg/m <sup>3</sup> mist
subtilisin	0.00004 mg/m <sup>3</sup>	0.00012 mg/m <sup>3</sup>
glutaraldehyde	0.05 ppm 0.2 mg/m <sup>3</sup>	0.05 ppm 0.2 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
glycerol	-	-	-	229
monoethanolamine alkylbenzenesulphonate	-	-	-	0.85
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
subtilisin	-	3.6	-	1.8
dodecanal	-	-	-	7
2-methylundecanal	-	-	-	5.23
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available	No data available	No data available	No data available
glutaraldehyde	-	-	-	0.07
isoeugenol	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)
glycerol	No data available	-	No data available	-
monoethanolamine alkylbenzenesulphonate	No data available	-	12 mg/kg bw	170
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
subtilisin	0.2 %	-	-	-
dodecanal	No data available	-	No data available	-
2-methylundecanal	No data available	-	No data available	-
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available	No data available	No data available	No data available
glutaraldehyde	No data available	-	No data available	-
isoeugenol	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)
glycerol	No data available	-	No data available	-
monoethanolamine alkylbenzenesulphonate	No data available	-	No data available	85
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
subtilisin	0.2 %	-	-	-
dodecanal	No data available	-	No data available	-
2-methylundecanal	No data available	-	No data available	-
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available	No data available	No data available	No data available
glutaraldehyde	No data available	-	No data available	-
isoeugenol	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
glycerol	-	-	56	56
monoethanolamine alkylbenzenesulphonate	-	-	12	-
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
subtilisin	-	-	0.00006	-
dodecanal	-	-	-	-
2-methylundecanal	-	-	-	-
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available	No data available	No data available	No data available
glutaraldehyde	-	-	0.0106	-
isoeugenol	No data available	No data available	No data available	No data available

## Persil 3 in 1 Capsules Bio Professional

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
glycerol	-	-	-	33
monoethanolamine alkylbenzenesulphonate	-	-	3	3
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
subtilisin	-	-	0.000015	-
dodecanal	-	-	-	-
2-methylundecanal	-	-	-	-
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available	No data available	No data available	No data available
glutaraldehyde	-	-	-	-
isoeugenol	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)
glycerol	0.885	0.0885	8.85	1000
monoethanolamine alkylbenzenesulphonate	0.268	0.0268	0.0167	-
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
subtilisin	0.00006	0.000006	-	65
dodecanal	-	-	-	-
2-methylundecanal	-	-	-	-
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available	No data available	No data available	No data available
glutaraldehyde	0.0025	0.00025	0.006	0.8
isoeugenol	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> )
glycerol	3.3	0.33	0.141	-
monoethanolamine alkylbenzenesulphonate	8.1	8.1	35	-
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
subtilisin	-	-	-	-
dodecanal	-	-	-	-
2-methylundecanal	-	-	-	-
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available	No data available	No data available	No data available
glutaraldehyde	0.091	0.0009	0.03	-
isoeugenol	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:** No special requirements under normal use conditions.  
**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
PC35-Washing and cleaning products	PC35-Washing and cleaning products	C		-	ERC8a
Manual transfer and dilution	AISE_SWED_PW_8a_1	PW	PROC 8a	60	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 16321).

## Hand protection:

Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary. Repeated or prolonged contact: 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

## Persil 3 in 1 Capsules Bio Professional

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:** No special requirements under normal use conditions.  
**Respiratory protection:** No special requirements under normal use conditions.

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

Recommended safety measures for handling the diluted product:

**Recommended maximum concentration (% w/w):** 0.1

**Appropriate engineering controls:** No special requirements under normal use conditions.  
**Appropriate organisational controls:** No special requirements under normal use conditions.

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

	SWED	LCS	PROC	Duration (min)	ERC
PC35-Washing and cleaning products	PC35-Washing and cleaning products	C	-	-	ERC8a
Automatic application in a dedicated closed system	AISE_SWED_PW_1_1	PW	PROC 1	480	ERC8a
Manual application	AISE_SWED_PW_19_1	PW	PROC 19	480	ERC8a
Automatic application in a dedicated system	AISE_SWED_PW_4_1	PW	PROC 4	480	ERC8a

**Personal protective equipment**

**Eye / face protection:** No special requirements under normal use conditions.  
**Hand protection:** Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.  
**Body protection:** No special requirements under normal use conditions.  
**Respiratory protection:** No special requirements under normal use conditions.

**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 , Blue

**Odour:** Product specific

**Odour threshold:** Not applicable

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

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

Not relevant to classification of this product  
See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
glycerol	290	Method not given	1013
monoethanolamine alkylbenzenesulphonate	No data available		
C12-14 alcohols, ethoxylated (7EO)	No data available		
subtilisin	No data available		
dodecanal	No data available		
2-methylundecanal	No data available		
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available		
glutaraldehyde	101.5	Method not given	987.1
isoeugenol	No data available		

**Method / remark**

**Flammability (solid, gas):** Not applicable to liquids

**Flammability (liquid):** Not flammable.

**Flash point (°C):** Not determined

**Sustained combustion:** Not applicable.

( 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)

## Persil 3 in 1 Capsules Bio Professional

glycerol	2.7	19
subtilisin	-	-

## Method / remark

**Autoignition temperature:** Not determined  
**Decomposition temperature:** Not applicable.  
**pH:** Not applicable  
**Dilution pH:** ≈ 9 (0.1 %)  
**Kinematic viscosity:** Not determined  
**Solubility in / Miscibility with water:** Fully miscible

ISO 4316  
 ISO 4316  
 DM-006 Viscosity - Additional

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
glycerol	500	Method not given	20
monoethanolamine alkylbenzenesulphonate	No data available		
C12-14 alcohols, ethoxylated (7EO)	Soluble	Method not given	
subtilisin	No data available		
dodecanal	No data available		
2-methylundecanal	No data available		
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available		
glutaraldehyde	Soluble	Method not given	20
isoeugenol	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)
glycerol	< 1	Method not given	20
monoethanolamine alkylbenzenesulphonate	No data available		
C12-14 alcohols, ethoxylated (7EO)	No data available		
subtilisin	Not applicable		
dodecanal	No data available		
2-methylundecanal	No data available		
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available		
glutaraldehyde	2000	Method not given	20.1
isoeugenol	No data available		

## Method / remark

**Relative density:** ≈ 1.06 (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:** 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.

## Persil 3 in 1 Capsules Bio Professional

**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 hazard classes as defined in Regulation (EC) No 1272/2008**Mixture data: .**Relevant calculated ATE(s):**

ATE - Oral (mg/kg): &gt;2000

**Eye irritation and corrosivity****Result:** Eye irritant 2      **Method:** Weight of evidenceSubstance 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 Oral (mg/kg)
glycerol	LD <sub>50</sub>	12600	Mouse	Method not given		Not established
monoethanolamine alkylbenzenesulphonate	LD <sub>50</sub>	1515	Rat	Method not given		1515
C12-14 alcohols, ethoxylated (7EO)	LD <sub>50</sub>	> 300 - 2000	Rat	Read across		Not established
subtilisin	LD <sub>50</sub>	1800	Rat	OECD 401 (EU B.1)		1800
dodecanal		23100				Not established
2-methylundecanal	LD <sub>50</sub>	> 5000	Rat	Method not given		Not established
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available				Not established
glutaraldehyde	LD <sub>50</sub>	77	Rat	OECD 401 (EU B.1)		77
isoeugenol		No data available				Not established

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Dermal (mg/kg)
glycerol	LD <sub>50</sub>	> 10000	Rabbit	Method not given		Not established
monoethanolamine alkylbenzenesulphonate	LD <sub>50</sub>	2504	Rabbit	Method not given		Not established
C12-14 alcohols, ethoxylated (7EO)	LD <sub>50</sub>	> 2000	Rabbit	Method not given		Not established
subtilisin		No data available				Not established
dodecanal		No data available				Not established
2-methylundecanal	LD <sub>50</sub>	> 5000	Rabbit	Method not given	24 hours	Not established
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available				Not established
glutaraldehyde	LD <sub>50</sub>	> 1000	Rabbit	OECD 402 (EU B.3)		Not established
isoeugenol		No data available				Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
glycerol		> 2.75	Rat	Weight of evidence	4 Hrs.
monoethanolamine alkylbenzenesulphonate	LC <sub>50</sub>	> 5		Method not given	4
C12-14 alcohols, ethoxylated (7EO)		No data available			
subtilisin		-		Weight of evidence	
dodecanal		No data available			
2-methylundecanal		No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available			
glutaraldehyde	LC <sub>50</sub>	028-0.39 (mist)	Rat	OECD 403 (EU B.2)	4
isoeugenol		No data available			

## Persil 3 in 1 Capsules Bio Professional

## 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)
glycerol	Not established	Not established	Not established	Not established
monoethanolamine alkylbenzenesulphonate	Not established	Not established	Not established	Not established
C12-14 alcohols, ethoxylated (7EO)	Not established	Not established	Not established	Not established
subtilisin	Not established	Not established	Not established	Not established
dodecanal	Not established	Not established	Not established	Not established
2-methylundecanal	Not established	Not established	Not established	Not established
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	Not established	Not established	Not established	Not established
glutaraldehyde	Not established	0.28	Not established	Not established
isoeugenol	Not established	Not established	Not established	Not established

## Irritation and corrosivity

## Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
glycerol	Not irritant		OECD 404 (EU B.4)	
monoethanolamine alkylbenzenesulphonate	No data available			
C12-14 alcohols, ethoxylated (7EO)	Not irritant		Read across	
subtilisin	Mild irritant	Rabbit	OECD 404 (EU B.4)	
dodecanal	No data available			
2-methylundecanal	No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available			
glutaraldehyde	Corrosive	Rabbit	OECD 404 (EU B.4)	
isoeugenol	No data available			

## Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
glycerol	Not corrosive or irritant		Method not given	
monoethanolamine alkylbenzenesulphonate	No data available			
C12-14 alcohols, ethoxylated (7EO)	Severe damage	Rabbit	Read across	
subtilisin	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	
dodecanal	No data available			
2-methylundecanal	No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available			
glutaraldehyde	Severe damage	Rabbit	OECD 405 (EU B.5)	
isoeugenol	No data available			

## Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
glycerol	No data available			
monoethanolamine alkylbenzenesulphonate	No data available			
C12-14 alcohols, ethoxylated (7EO)	No data available			
subtilisin	Irritating to respiratory tract			
dodecanal	No data available			
2-methylundecanal	No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available			
glutaraldehyde	No data available			
isoeugenol	No data available			

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
glycerol	Not sensitising	Human	Human repeated patch test	
monoethanolamine alkylbenzenesulphonate	No data available			
C12-14 alcohols, ethoxylated (7EO)	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
subtilisin	No data available			
dodecanal	No data available			
2-methylundecanal	No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available			
glutaraldehyde	Sensitising	Guinea pig	Method not given	

## Persil 3 in 1 Capsules Bio Professional

isoeugenol	No data available		
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## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
glycerol	No data available			
monoethanolamine alkylbenzenesulphonate	No data available			
C12-14 alcohols, ethoxylated (7EO)	No data available			
subtilisin	Sensitising		Weight of evidence	
dodecanal	No data available			
2-methylundecanal	No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available			
glutaraldehyde	No data available			
isoeugenol	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)
glycerol	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
monoethanolamine alkylbenzenesulphonate	No data available		No data available	
C12-14 alcohols, ethoxylated (7EO)	No evidence for mutagenicity, negative test results	Read across	No data available	
subtilisin	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Chinese Hamster Ovary)	No data available	
dodecanal	No data available		No data available	
2-methylundecanal	No data available		No data available	
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available		No data available	
glutaraldehyde	Mutagenic	Method not given	No evidence for mutagenicity, negative test results	Method not given
isoeugenol	No data available		No data available	

## Carcinogenicity

Ingredient(s)	Effect
glycerol	No evidence for carcinogenicity, negative test results
monoethanolamine alkylbenzenesulphonate	No data available
C12-14 alcohols, ethoxylated (7EO)	No data available
subtilisin	No data available
dodecanal	No data available
2-methylundecanal	No data available
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available
glutaraldehyde	No evidence for carcinogenicity, negative test results
isoeugenol	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
glycerol			No data available				Not toxic for reproduction
monoethanolamine alkylbenzenesulphonate			No data available				
C12-14 alcohols, ethoxylated (7EO)			No data available				
subtilisin			No data available				
dodecanal			No data available				
2-methylundecanal			No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one			No data available				
glutaraldehyde			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity
isoeugenol			No data available				

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## 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
glycerol		No data available				
monoethanolamine alkylbenzenesulphonate		No data available				
C12-14 alcohols, ethoxylated (7EO)		No data available				
subtilisin		No data available				
dodecanal		No data available				
2-methylundecanal		No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available				
glutaraldehyde		No data available				
isoeugenol		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
glycerol		No data available				
monoethanolamine alkylbenzenesulphonate		No data available				
C12-14 alcohols, ethoxylated (7EO)		No data available				
subtilisin		No data available				
dodecanal		No data available				
2-methylundecanal		No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available				
glutaraldehyde		No data available				
isoeugenol		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
glycerol		No data available				
monoethanolamine alkylbenzenesulphonate		No data available				
C12-14 alcohols, ethoxylated (7EO)		No data available				
subtilisin		No data available				
dodecanal		No data available				
2-methylundecanal		No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available				
glutaraldehyde		No data available				
isoeugenol		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
glycerol			No data available					
monoethanolamine alkylbenzenesulphonate			No data available					
C12-14 alcohols, ethoxylated (7EO)			No data available					
subtilisin			No data available					

## Persil 3 in 1 Capsules Bio Professional

			available				
dodecanal			No data available				
2-methylundecanal			No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one			No data available				
glutaraldehyde			No data available				
isoeugenol			No data available				

## STOT-single exposure

Ingredient(s)	Affected organ(s)
glycerol	No data available
monoethanolamine alkylbenzenesulphonate	No data available
C12-14 alcohols, ethoxylated (7EO)	No data available
subtilisin	Respiratory tract
dodecanal	No data available
2-methylundecanal	No data available
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available
glutaraldehyde	Respiratory tract
isoeugenol	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
glycerol	No data available
monoethanolamine alkylbenzenesulphonate	No data available
C12-14 alcohols, ethoxylated (7EO)	No data available
subtilisin	No data available
dodecanal	No data available
2-methylundecanal	No data available
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available
glutaraldehyde	Respiratory tract
isoeugenol	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)
glycerol	LC <sub>50</sub>	54000	<i>Oncorhynchus mykiss</i>	Method not given	96
monoethanolamine alkylbenzenesulphonate	LC <sub>50</sub>	2.22	<i>Pimephales promelas</i>	OECD 203, semi-static	96
C12-14 alcohols, ethoxylated (7EO)	LC <sub>50</sub>	> 1 - 10	<i>Brachydanio rerio</i>	Read across	96
subtilisin	LC <sub>50</sub>	8.2	<i>Fish</i>	OECD 203 (EU C.1)	96
dodecanal		No data available			

## Persil 3 in 1 Capsules Bio Professional

2-methylundecanal		No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available			
glutaraldehyde	LC <sub>50</sub>	0.8	<i>Oncorhynchus mykiss</i>	OECD 203, static	96
isoeugenol		No data available			

## Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
glycerol	EC <sub>50</sub>	> 10000	<i>Daphnia magna Straus</i>	Method not given	24
monoethanolamine alkylbenzenesulphonate		No data available			
C12-14 alcohols, ethoxylated (7EO)	EC <sub>50</sub>	> 1 - 10	<i>Daphnia magna Straus</i>	Method not given	48
subtilisin	EC <sub>50</sub>	0.586	<i>Daphnia</i>	OECD 202 (EU C.2)	48
dodecanal		No data available			
2-methylundecanal		No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available			
glutaraldehyde	LC <sub>50</sub>	0.345	<i>Daphnia magna Straus</i>	Method not given	48
isoeugenol		No data available			

## Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
glycerol		2900			
monoethanolamine alkylbenzenesulphonate		No data available			
C12-14 alcohols, ethoxylated (7EO)	NOEC	> 0.1 - 1	<i>Not specified</i>	DIN 38412, Part 9 OECD 201 (EU C.3)	
subtilisin	E <sub>r</sub> C <sub>50</sub>	0.830	<i>Not specified</i>	OECD 201 (EU C.3)	72
dodecanal		No data available			
2-methylundecanal		No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available			
glutaraldehyde	EC <sub>50</sub>	0.6	<i>Desmodesmus subspicatus</i>	OECD 201, static	72
isoeugenol		No data available			

## Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
glycerol		No data available			
monoethanolamine alkylbenzenesulphonate		No data available			
C12-14 alcohols, ethoxylated (7EO)		No data available			
subtilisin		No data available			
dodecanal		No data available			
2-methylundecanal		No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available			
glutaraldehyde		No data available			
isoeugenol		No data available			

## Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
glycerol	EC <sub>50</sub>	> 10000	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
monoethanolamine alkylbenzenesulphonate		No data			

## Persil 3 in 1 Capsules Bio Professional

		available			
C12-14 alcohols, ethoxylated (7EO)		> 1000	Activated sludge	DEV-L2	
subtilisin		No data available			
dodecanal		No data available			
2-methylundecanal		No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available			
glutaraldehyde	EC <sub>20</sub>	15	Activated sludge	OECD 209	30 minute(s)
isoeugenol		No data available			

## Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
glycerol		No data available				
monoethanolamine alkylbenzenesulphonate		No data available				
C12-14 alcohols, ethoxylated (7EO)	EC <sub>50</sub>	10-100	Not specified	Method not given	96 hour(s)	
subtilisin		No data available				
dodecanal		No data available				
2-methylundecanal		No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available				
glutaraldehyde	NOEC	1.6	<i>Oncorhynchus mykiss</i>	Method not given	97 day(s)	
isoeugenol		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
glycerol		No data available				
monoethanolamine alkylbenzenesulphonate		No data available				
C12-14 alcohols, ethoxylated (7EO)	EC <sub>50</sub>	10-100	Not specified	Method not given	48 hour(s)	
subtilisin		No data available				
dodecanal		No data available				
2-methylundecanal		No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available				
glutaraldehyde	NOEC	5.0	<i>Daphnia magna</i>	OECD 211, semi-static	21 day(s)	
isoeugenol		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
glycerol		No data available				
monoethanolamine alkylbenzenesulphonate		No data available				
C12-14 alcohols, ethoxylated (7EO)		No data available				
subtilisin		No data available				
dodecanal		No data available				
2-methylundecanal		No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available				

## Persil 3 in 1 Capsules Bio Professional

glutaraldehyde		No data available			
isoeugenol		No data available			

**Terrestrial toxicity**

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

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

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

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

**Biodegradation**

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
glycerol			60% in 28 day(s)	Method not given	Readily biodegradable
monoethanolamine alkylbenzenesulphonate	Activated sludge, aerobe	CO <sub>2</sub> production	89% in 29 day(s)	OECD 301B	Readily biodegradable
C12-14 alcohols, ethoxylated (7EO)		CO <sub>2</sub> production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
subtilisin				OECD 301B	Readily biodegradable
dodecanal				OECD 301F	Readily biodegradable
2-methylundecanal				OECD 301F	Readily biodegradable
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one					Not readily biodegradable.
glutaraldehyde	Activated sludge, aerobe	DOC reduction	90 - 100 % in 28 day(s)	OECD 301A	Readily biodegradable
isoeugenol		Oxygen depletion	79% in 28 day(s)	OECD 301F	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

**12.3 Bioaccumulative potential**

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
glycerol	-1.76	Method not given	No bioaccumulation expected	
monoethanolamine alkylbenzenesulphonate	No data available			
C12-14 alcohols, ethoxylated (7EO)	No data available		No bioaccumulation expected	
subtilisin	< 0			
dodecanal	No data available			
2-methylundecanal	No data available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available			
glutaraldehyde	-0.36	(EC) 440/2008, A.8	No bioaccumulation expected	
isoeugenol	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
glycerol	No data available				
monoethanolamine alkylbenzenesulphonate	No data available				
C12-14 alcohols, ethoxylated (7EO)	No data available				
subtilisin	-			Not relevant, does not	

## Persil 3 in 1 Capsules Bio Professional

				bioaccumulate	
dodecanal	No data available				
2-methylundecanal	No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available				
glutaraldehyde	No data available				
isoeugenol	No data available				

**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
glycerol	No data available				Potential for mobility in soil, soluble in water
monoethanolamine alkylbenzenesulphonate	No data available				
C12-14 alcohols, ethoxylated (7EO)	No data available	≥ 4			Potential for adsorption to soil
subtilisin	No data available				
dodecanal	No data available				
2-methylundecanal	No data available				
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	No data available				
glutaraldehyde	2.51		Method not given		Potential for adsorption to soil
isoeugenol	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.

**European Waste Catalogue:**

20 01 29\* - detergents containing dangerous substances.

**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 or ID 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**14.7 Maritime transport in bulk according to IMO instruments:** 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)

**Persil 3 in 1 Capsules Bio Professional**

- Regulation (EC) 648/2004 - Detergents regulation (UK amended)
- 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, anionic surfactants, soap	15 - 30 %
phosphonates	< 5%
perfumes , enzymes, optical brighteners, Alpha-Isomethyl Ionone	

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:** MS1006578

**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.

**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
- H301 - Toxic if swallowed.
- H302 - Harmful if swallowed.
- 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.
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 - May cause respiratory irritation.
- 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.

**End of Safety Data Sheet**