

Persil 3 in 1 Capsules Bio Professional

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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 local operating company

Contact details

Diversey local operating company

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible).

This International SDS is for information only. It does not meet all applicable regulatory requirements and does not replace the relevant statutory data sheet for your country.

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.

2.3 Other hazards

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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 medical attention.

Ingestion:

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

Self-protection of first aider:

Consider personal protective equipment as indicated in subsection 8.2.

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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**

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Air limit values, if available:

Biological limit values, if available:

Recommended monitoring procedures, if available:

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

DNEL/DMEL and PNEC values

Human exposure

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

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
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/m³)

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

DNEL/DMEL inhalatory exposure - Consumer (mg/m³)

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

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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 ³)
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
 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.

Respiratory protection:

No special requirements under normal use conditions.

Environmental exposure controls:

No special requirements under normal use conditions.

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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	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
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)
glycerol	2.7	19
subtilisin	-	-

	Method / remark
Autoignition temperature: Not determined	
Decomposition temperature: Not applicable.	
pH: Not applicable	ISO 4316

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Dilution pH: \approx 9 (0.1 %)
Kinematic viscosity: Not determined
Solubility in / Miscibility with water: Fully miscible

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

Vapour pressure: Not determined

Method / remark
 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		

Relative density: \approx 1.06 (20 °C)
Relative vapour density: No data available.
Particle characteristics: No data available.

Method / remark
 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.

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

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11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Mixture data: .

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

Eye irritation and corrosivity

Result: Eye irritant 2

Method: Weight of evidence

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 Oral (mg/kg)
glycerol	LD ₅₀	12600	Mouse	Method not given		Not established
monoethanolamine alkylbenzenesulphonate	LD ₅₀	1515	Rat	Method not given		1515
C12-14 alcohols, ethoxylated (7EO)	LD ₅₀	> 300 - 2000	Rat	Read across		Not established
subtilisin	LD ₅₀	1800	Rat	OECD 401 (EU B.1)		1800
dodecanal		23100				Not established
2-methylundecanal	LD ₅₀	> 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 ₅₀	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 ₅₀	> 10000	Rabbit	Method not given		Not established
monoethanolamine alkylbenzenesulphonate	LD ₅₀	2504	Rabbit	Method not given		Not established
C12-14 alcohols, ethoxylated (7EO)	LD ₅₀	> 2000	Rabbit	Method not given		Not established
subtilisin		No data available				Not established
dodecanal		No data available				Not established
2-methylundecanal	LD ₅₀	> 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 ₅₀	> 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 ₅₀	> 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 ₅₀	028-0.39 (mist)	Rat	OECD 403 (EU B.2)	4
isoeugenol		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)
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

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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	
isoeugenol	No data available			

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			

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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				

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				

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		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					
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					

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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 ₅₀	54000	<i>Oncorhynchus mykiss</i>	Method not given	96
monoethanolamine alkylbenzenesulphonate	LC ₅₀	2.22	<i>Pimephales promelas</i>	OECD 203, semi-static	96
C12-14 alcohols, ethoxylated (7EO)	LC ₅₀	> 1 - 10	<i>Brachydanio rerio</i>	Read across	96
subtilisin	LC ₅₀	8.2	<i>Fish</i>	OECD 203 (EU C.1)	96
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 ₅₀	0.8	<i>Oncorhynchus mykiss</i>	OECD 203, static	96
isoeugenol		No data available			

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Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
glycerol	EC ₅₀	> 10000	<i>Daphnia magna Straus</i>	Method not given	24
monoethanolamine alkylbenzenesulphonate		No data available			
C12-14 alcohols, ethoxylated (7EO)	EC ₅₀	> 1 - 10	<i>Daphnia magna Straus</i>	Method not given	48
subtilisin	EC ₅₀	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 ₅₀	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 _r C ₅₀	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 ₅₀	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 ₅₀	> 10000	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
monoethanolamine alkylbenzenesulphonate		No data available			
C12-14 alcohols, ethoxylated (7EO)		> 1000	<i>Activated sludge</i>	DEV-L2	
subtilisin		No data available			
dodecanal		No data available			
2-methylundecanal		No data			

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		available			
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one		No data available			
glutaraldehyde	EC ₂₀	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 ₅₀	10-100	<i>Not specified</i>	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 ₅₀	10-100	<i>Not specified</i>	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				
glutaraldehyde		No data available				
isoeugenol		No data available				

Terrestrial toxicity

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

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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 ₅₀	Method	Evaluation
glycerol			60% in 28 day(s)	Method not given	Readily biodegradable
monoethanolamine alkylbenzenesulphonate	Activated sludge, aerobe	CO ₂ production	89% in 29 day(s)	OECD 301B	Readily biodegradable
C12-14 alcohols, ethoxylated (7EO)		CO ₂ 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 K_{ow})

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 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				

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isoeugenol	No data available			
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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****EU regulations:**

- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No 1272/2008 - CLP
- Regulation (EC) No. 648/2004 - Detergents regulation
- substances identified as having endocrine disrupting properties in accordance with the criteria set out in Delegated Regulation (EU) 2017/2100 or Regulation (EU) 2018/605
- 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.

Persil 3 in 1 Capsules Bio Professional**Ingredients according to EC Detergents Regulation 648/2004**

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) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Seveso - 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

Revision: 2024-12-17

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