Safety Data Sheet

According to Regulation (EC) No 1907/2006

Clax 200 Pur-Eco 24D1

Revision: 2023-07-26 **Version:** 03.2

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

1.1 Product identifier
Trade name: Clax 200 Pur-Eco 24D1

UFI: J672-Q0W0-F00S-UJ4S

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

Product use:	Laundry aid . For professional use only.
Uses advised against:	Uses other than those identified are not recommended.

SWED - Sector-specific worker exposure description :
AISE_SWED_PW_8b_2
AISE_SWED_PW_1_1
AISE_SWED_PW_4_1

1.3 Details of the supplier of the safety data sheet
Diversey Europe Operations BV, Maarssenbroeksedijk 2, 3542DN Utrecht, The Netherlands

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

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Eye Irrit. 2 (H319)

2.2 Label elements

Signal word: Warning.

Contains subtilisin (Subtilisin)

Hazard statements:
H319 - Causes serious eye irritation.
EUH208 - May produce an allergic reaction.

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
propane-1,2-diol	200-338-0	57-55-6	01-2119456809-23	Not classified as hazardous		20-30
alkyl alcohol ethoxylate	[4]	69011-36-5	[4]	Acute Tox. 4 (H302) Eye Dam. 1 (H318)		10-20
alkyl alcohol alkoxylate	[4]	111905-53-4	[4]	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Aquatic Chronic 3 (H412)		3-10
glycerol	200-289-5	56-81-5	01-2119471987-18	Not classified as hazardous		1-3
sodium cumenesulphonate	239-854-6	15763-76-5	01-2119489411-37	Eye Irrit. 2 (H319)		1-3
subtilisin	232-752-2	9014-01-1	01-2119480434-38	Acute Tox. 4 (H302) STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Resp. Sens. 1 (H334) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)		0.1-1
3-iodo-2-propynylbutylcarbamate	259-627-5	55406-53-6	01-2120762115-60	Acute Tox. 3 (H331) STOT RE 1 (H372) Acute Tox. 4 (H302) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 M=10 (H400) Aquatic Chronic 1 (H410)		0.01-0.1

Workplace exposure limit(s), if available, are listed in subsection 8.1.
ATE, if available, are listed in section 11.
[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.
For the full text of the H and EUH phrases mentioned in this Section, see Section 16..

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Get medical attention or advice if you feel unwell.

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

Eye contact: Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Rinse cautiously with water for several 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.

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: No known effects or symptoms in normal use.

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
Wear eye/face protection.

6.2 Environmental precautions
Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water.

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.
Advices on general occupational hygiene:
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless adviced by Diversey. Wash hands before breaks and at the end of workday. Avoid contact with 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.
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)
propane-1,2-diol	150 ppm total vapour and particulates 474 mg/m³ total vapour and particulates 10 mg/m³ particulates	450 ppm total vapour and particulates 1422 mg/m³ total vapour and particulates 30 mg/m³ particulate
glycerol	10 mg/m³ mist	30 mg/m³ mist
subtilisin	0.00004 mg/m³	0.00012 mg/m³

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
propane-1,2-diol	-	-	-	-
alkyl alcohol ethoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
glycerol	-	-	-	229
sodium cumenesulphonate	-	-	-	3.8
subtilisin	-	3.6	-	1.8
3-iodo-2-propynylbutylcarbamate	-	-	-	-

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)
propane-1,2-diol	-	-	-	-
alkyl alcohol ethoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
glycerol	No data available	-	No data available	-
sodium cumenesulphonate	-	-	-	136.25
subtilisin	0.2 %	-	-	-
3-iodo-2-propynylbutylcarbamate	-	-	-	2

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)
propane-1,2-diol	-	-	-	-
alkyl alcohol ethoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
glycerol	No data available	-	No data available	-
sodium cumenesulphonate	-	-	-	68.1
subtilisin	0.2 %	-	-	-
3-iodo-2-propynylbutylcarbamate	-	-	-	-

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
propane-1,2-diol	-	-	10	168
alkyl alcohol ethoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
glycerol	-	-	56	56
sodium cumenesulphonate	-	-	-	26.9
subtilisin	-	-	0.00006	-
3-iodo-2-propynylbutylcarbamate	1.16	0.07	1.16	0.023

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
propane-1,2-diol	-	-	10	50
alkyl alcohol ethoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
glycerol	-	-	-	33
sodium cumenesulphonate	-	-	-	6.6
subtilisin	-	-	0.000015	-
3-iodo-2-propynylbutylcarbamate	-	-	-	-

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)
propane-1,2-diol	260	26	183	20000
alkyl alcohol ethoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
glycerol	0.885	0.0885	8.85	1000
sodium cumenesulphonate	0.23	0.023	2.3	100
subtilisin	0.00006	0.000006	-	65
3-iodo-2-propynylbutylcarbamate	0.001	0	0.001	0.44

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
propane-1,2-diol	572	57.2	50	-
alkyl alcohol ethoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
glycerol	3.3	0.33	0.141	-
sodium cumenesulphonate	0.862	0.0862	0.037	-
subtilisin	-	-	-	-
3-iodo-2-propynylbutylcarbamate	0.017	0.002	0.005	-

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
Automatic transfer and dilution	AISE_SWED_PW_8b_2	PW	PROC 8b	60	ERC8b

Personal protective equipment
Eye / face protection: Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product (EN 166).
Hand protection: No special requirements under normal use conditions.
Body protection: No special requirements under normal use conditions.
Respiratory protection: 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): 0.28

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
Automatic application in a dedicated closed system	AISE_SWED_PW_1_1	PW	PROC 1	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: No special requirements under normal use conditions.
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 , Colourless
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)
propane-1,2-diol	185-190	Method not given	1013
alkyl alcohol ethoxylate	> 200	Method not given	
alkyl alcohol alkoxylate	No data available		
glycerol	290	Method not given	1013
sodium cumenesulphonate	No data available		
subtilisin	No data available		
3-iodo-2-propynylbutylcarbamate	Product decomposes before boiling	OECD 103 (EU A.2)	

	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)
propane-1,2-diol	2.6	12.6
glycerol	2.7	19
subtilisin	-	-

	Method / remark
Autoignition temperature: Not determined	
Decomposition temperature: Not applicable.	
pH: ≈ 8 (neat)	ISO 4316
Dilution pH: ≈ 8 (0.28 %)	ISO 4316
Kinematic viscosity: Not determined	DM-006 Viscosity - Additional
Solubility in / Miscibility with water: Fully miscible	

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
propane-1,2-diol	Soluble	Method not given	
alkyl alcohol ethoxylate	Soluble	Method not given	20
alkyl alcohol alkoxylate	No data available		
glycerol	500	Method not given	20
sodium cumenesulphonate	493 Soluble	Method not given	20
subtilisin	No data available		
3-iodo-2-propynylbutylcarbamate	0.168	OECD 105 (EU A.6)	

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)
propane-1,2-diol	18.6	Method not given	20
alkyl alcohol ethoxylate	Negligible	Method not given	20-25
alkyl alcohol alkoxylate	No data available		
glycerol	< 1	Method not given	20
sodium cumenesulphonate	No data available		
subtilisin	Not applicable		
3-iodo-2-propynylbutylcarbamate	0.000045	OECD 104 (EU A.4)	25

	Method / remark
Relative density: ≈ 1.04 (20 °C)	OECD 109 (EU A.3)
Relative vapour density: No data available.	Not relevant to classification of this product
Particle characteristics: No data available.	Not applicable to liquids.

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

9.2.2 Other safety characteristics
No other relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability
Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid
None known under normal storage and use conditions.

10.5 Incompatible materials
None known under normal use conditions.

10.6 Hazardous decomposition products
None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on 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 **Species:** Not applicable. **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 (mg/kg)
propane-1,2-diol	LD_{50}	> 10000	Rat	Method not given		Not established
alkyl alcohol ethoxylate	LD_{50}	> 300-2000	Rat	OECD 423 (EU B.1 tris)		Not established
alkyl alcohol alkoxylate	LD_{50}	≥ 300-2000	Rat	Method not given		Not established
glycerol	LD_{50}	12600	Mouse	Method not given		Not established
sodium cumenesulphonate	LD_{50}	> 7000	Rat	Method not given		Not established
subtilisin	LD_{50}	1800	Rat	OECD 401 (EU B.1)		1800
3-iodo-2-propynylbutylcarbamate	LD_{50}	1056	Rat	OECD 401 (EU B.1)		1056

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
propane-1,2-diol	LD_{50}	> 2000	Rabbit	Method not given		Not established
alkyl alcohol ethoxylate	LD_{50}	> 2000	Rabbit	Method not given		Not established
alkyl alcohol alkoxylate		No data available				Not established
glycerol	LD_{50}	> 10000	Rabbit	Method not given		Not established
sodium cumenesulphonate	LD_{50}	> 2000	Rabbit	Method not given		Not established
subtilisin		No data available				Not established
3-iodo-2-propynylbutylcarbamate	LD_{50}	> 2000	Rabbit	EPA OPP 81-2	24	Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
propane-1,2-diol	LC_{50}	> 317 (mist) No mortality observed	Rabbit	Non guideline test	
alkyl alcohol ethoxylate		No data available			
alkyl alcohol alkoxylate		No data available			
glycerol		> 2.75	Rat	Weight of evidence	4 Hrs.
sodium cumenesulphonate	LC_{50}	> 5 (mist) No mortality observed	Rat	Read across	3.87
subtilisin		-		Weight of evidence	
3-iodo-2-propynylbutylcarbamate	LC_{50}	0.763 (mist)	Rat	Method not given	4

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)
propane-1,2-diol	Not established	Not established	Not established	Not established
alkyl alcohol ethoxylate	Not established	Not established	Not established	Not established
alkyl alcohol alkoxylate	Not established	Not established	Not established	Not established
glycerol	Not established	Not established	Not established	Not established
sodium cumenesulphonate	Not established	Not established	Not established	Not established
subtilisin	Not established	Not established	Not established	Not established
3-iodo-2-propynylbutylcarbamate	Not established	0.763	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
propane-1,2-diol	Not irritant	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol ethoxylate	Not irritant	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol alkoxylate	Mild irritant	Rabbit	OECD 404 (EU B.4)	
glycerol	Not irritant		OECD 404 (EU B.4)	
sodium cumenesulphonate	Not irritant	Rabbit	OECD 404 (EU B.4)	
subtilisin	Mild irritant	Rabbit	OECD 404 (EU B.4)	
3-iodo-2-propynylbutylcarbamate	Not irritant	Rabbit	EPA OPP 81-5	4 hour(s)

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
propane-1,2-diol	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	
alkyl alcohol ethoxylate	Severe damage	Rabbit	Method not given	
alkyl alcohol alkoxylate	Irritant	Rabbit	OECD 405 (EU B.5)	
glycerol	Not corrosive or irritant		Method not given	
sodium cumenesulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
subtilisin	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	
3-iodo-2-propynylbutylcarbamate	Severe damage	Rabbit	EPA OPP 81-4	0.5 minute(s)

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
propane-1,2-diol	No data available			
alkyl alcohol ethoxylate	No data available			
alkyl alcohol alkoxylate	No data available			
glycerol	No data available			
sodium cumenesulphonate	No data available			
subtilisin	Irritating to respiratory tract			
3-iodo-2-propynylbutylcarbamate	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
propane-1,2-diol	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
alkyl alcohol ethoxylate	Not sensitising	Guinea pig	Method not given	
alkyl alcohol alkoxylate	No data available			
glycerol	Not sensitising	Human	Human repeated patch test	
sodium cumenesulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
subtilisin	No data available			
3-iodo-2-propynylbutylcarbamate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
propane-1,2-diol	No data available			
alkyl alcohol ethoxylate	No data available			
alkyl alcohol alkoxylate	No data available			
glycerol	No data available			
sodium cumenesulphonate	No data available			

subtilisin	Sensitising		Weight of evidence	
3-iodo-2-propynylbutylcarbamate	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)
propane-1,2-diol	No evidence for mutagenicity, negative test results	Method not given	No data available	
alkyl alcohol ethoxylate	No evidence of genotoxicity, negative test results	Method not given	No evidence of genotoxicity, negative test results	Method not given
alkyl alcohol alkoxylate	No data available		No data available	
glycerol	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
sodium cumenesulphonate	No evidence for mutagenicity, negative test results	Method not given	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
subtilisin	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Chinese Hamster Ovary)	No data available	
3-iodo-2-propynylbutylcarbamate	No evidence for mutagenicity		No data available	

Carcinogenicity

Ingredient(s)	Effect
propane-1,2-diol	No evidence for carcinogenicity, negative test results
alkyl alcohol ethoxylate	No evidence for carcinogenicity, weight-of-evidence
alkyl alcohol alkoxylate	No data available
glycerol	No evidence for carcinogenicity, negative test results
sodium cumenesulphonate	No evidence for carcinogenicity, negative test results
subtilisin	No data available
3-iodo-2-propynylbutylcarbamate	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
propane-1,2-diol			No data available				No evidence for reproductive toxicity
alkyl alcohol ethoxylate	NOAEL	Teratogenic effects	> 50	Rat	Not known		No known significant effects or critical hazards
alkyl alcohol alkoxylate			No data available				
glycerol			No data available				Not toxic for reproduction
sodium cumenesulphonate	NOAEL	Teratogenic effects	> 936	Rat	Non guideline test		No known significant effects or critical hazards
subtilisin			No data available				
3-iodo-2-propynylbutylcarbamate		Developmental toxicity Teratogenic effects	-				No evidence for developmental toxicity No evidence for teratogenic effects

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
propane-1,2-diol		No data available				
alkyl alcohol ethoxylate		No data available				
alkyl alcohol alkoxylate		No data available				
glycerol		No data available				
sodium cumenesulphonate	NOAEL	763 - 3534	Rat	OECD 408 (EU B.26)		No effects observed
subtilisin		No data available				
3-iodo-2-propynylbutylcarbamate		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

propane-1,2-diol		No data available				
alkyl alcohol ethoxylate		No data available				
alkyl alcohol alkoxylate		No data available				
glycerol		No data available				
sodium cumenesulphonate		No data available				
subtilisin		No data available				
3-iodo-2-propynylbutylcarbamate		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
propane-1,2-diol		No data available				
alkyl alcohol ethoxylate		No data available				
alkyl alcohol alkoxylate		No data available				
glycerol		No data available				
sodium cumenesulphonate		No data available				
subtilisin		No data available				
3-iodo-2-propynylbutylcarbamate		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
propane-1,2-diol			No data available					
alkyl alcohol ethoxylate	Oral	NOAEL	50	Rat	Method not given	24 month(s)	Effects on organ weights	
alkyl alcohol alkoxylate			No data available					
glycerol			No data available					
sodium cumenesulphonate			No data available					
subtilisin			No data available					
3-iodo-2-propynylbutylcarbamate			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
propane-1,2-diol	No data available
alkyl alcohol ethoxylate	Not applicable
alkyl alcohol alkoxylate	No data available
glycerol	No data available
sodium cumenesulphonate	Not applicable
subtilisin	Respiratory tract
3-iodo-2-propynylbutylcarbamate	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
propane-1,2-diol	No data available
alkyl alcohol ethoxylate	Not applicable
alkyl alcohol alkoxylate	No data available
glycerol	No data available
sodium cumenesulphonate	Not applicable
subtilisin	No data available
3-iodo-2-propynylbutylcarbamate	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)
propane-1,2-diol	LC_{50}	> 1000	*Fish*	Method not given	24
alkyl alcohol ethoxylate	LC_{50}	1 - 10	*Cyprinus carpio*	OECD 203 (EU C.1)	96
alkyl alcohol alkoxylate	LC_{50}	> 1- 10	*Leuciscus idus*	Method not given	96
glycerol	LC_{50}	54000	*Oncorhynchus mykiss*	Method not given	96
sodium cumenesulphonate	LC_{50}	> 1000	*Fish*	EPA-OPPTS 850.1075	96
subtilisin	LC_{50}	8.2	*Fish*	OECD 203 (EU C.1)	96
3-iodo-2-propynylbutylcarbamate	LC_{50}	0.067	*Oncorhynchus mykiss*	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
propane-1,2-diol	EC_{50}	> 100	*Daphnia*	Method not given	48
alkyl alcohol ethoxylate	EC_{50}	1 - 10	*Daphnia magna Straus*	OECD 202, static	48
alkyl alcohol alkoxylate	EC_{50}	> 1 - 10	*Daphnia magna Straus*	Method not given	48
glycerol	EC_{50}	> 10000	*Daphnia magna Straus*	Method not given	24
sodium cumenesulphonate	EC_{50}	> 1000	*Daphnia magna Straus*	OECD 202 (EU C.2)	48
subtilisin	EC_{50}	0.586	*Daphnia*	OECD 202 (EU C.2)	48
3-iodo-2-propynylbutylcarbamate	EC_{50}	0.16	*Daphnia magna Straus*	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
propane-1,2-diol	EC_{50}	24200	*Desmodesmus subspicatus*	OECD 201 (EU C.3)	72
alkyl alcohol ethoxylate	EC_{50}	1 - 10	*Desmodesmus subspicatus*	OECD 201, static	72
alkyl alcohol alkoxylate		No data available			
glycerol		2900			
sodium cumenesulphonate	$E_b C_{50}$	> 230	*Not specified*	EPA OPPTS 850.5400	96
subtilisin	$E_r C_{50}$	0.830	*Not specified*	OECD 201 (EU C.3)	72
3-iodo-2-propynylbutylcarbamate	$E_r C_{50}$	0.022	*Desmodesmus subspicatus*		72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
propane-1,2-diol		No data available			
alkyl alcohol ethoxylate		No data available			
alkyl alcohol alkoxylate		No data available			
glycerol		No data available			
sodium cumenesulphonate		No data			

		available			
subtilisin		No data available			
3-iodo-2-propynylbutylcarbamate		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
propane-1,2-diol	EC_0	> 20000	*Pseudomonas putida*	Method not given	18 hour(s)
alkyl alcohol ethoxylate	EC_{10}	> 10000	*Activated sludge*	DIN 38412 / Part 8	17 hour(s)
alkyl alcohol alkoxylate	EC_{10}	> 1000	*Activated sludge*	DEV-L2	
glycerol	EC_{50}	> 10000	*Pseudomonas putida*	Method not given	16 hour(s)
sodium cumenesulphonate	$E_r C_{50}$	> 1000	*Bacteria*	OECD 209	3 hour(s)
subtilisin		No data available			
3-iodo-2-propynylbutylcarbamate	EC_{50}	44	*Activated sludge*	Method not given	3 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
propane-1,2-diol		No data available				
alkyl alcohol ethoxylate		No data available				
alkyl alcohol alkoxylate		No data available				
glycerol		No data available				
sodium cumenesulphonate		No data available				
subtilisin		No data available				
3-iodo-2-propynylbutylcarbamate	NOEC	0.0084	*Pimephales promelas*	Method not given	35 day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
propane-1,2-diol	NOEC	13020	*Ceriodaphnia dubia*	Method not given	7 day(s)	
alkyl alcohol ethoxylate		No data available				
alkyl alcohol alkoxylate	NOEC	> 0.1 - 1	*Daphnia magna*	OECD 202	21 day(s)	
glycerol		No data available				
sodium cumenesulphonate		No data available				
subtilisin		No data available				
3-iodo-2-propynylbutylcarbamate	EC_{50}	0.05	*Daphnia magna*	Method not given	21 day(s)	

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
propane-1,2-diol		No data available				
alkyl alcohol ethoxylate		No data available				
alkyl alcohol alkoxylate		No data available				
glycerol		No data available				
sodium cumenesulphonate		No data available				
subtilisin		No data available				
3-iodo-2-propynylbutylcarbamate		No data available				

Terrestrial toxicity

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

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate	NOEC	220	*Eisenia fetida*			

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate	NOEC	10	*Lepidium sativum*	OECD 208		

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
propane-1,2-diol			> 70 % in 28 day(s)	OECD 301A	Readily biodegradable
alkyl alcohol ethoxylate	Activated sludge, aerobe	CO_2 production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
alkyl alcohol alkoxylate	Activated sludge, aerobe	CO_2 production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
glycerol			60% in 28 day(s)	Method not given	Readily biodegradable
sodium cumenesulphonate		CO_2 production	103 - 109% in 28 day(s)	OECD 301B	Readily biodegradable
subtilisin				OECD 301B	Readily biodegradable
3-iodo-2-propynylbutylcarbamate					Inherently 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
propane-1,2-diol	-1.07	Method not given	No bioaccumulation expected	
alkyl alcohol ethoxylate	4.09	QSAR	No bioaccumulation expected	
alkyl alcohol alkoxylate	No data available			
glycerol	-1.76	Method not given	No bioaccumulation expected	
sodium cumenesulphonate	-1.1	Method not given	No bioaccumulation expected	
subtilisin	< 0			
3-iodo-2-propynylbutylcarbamate	2.81		Low potential for bioaccumulation	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
propane-1,2-diol	No data available				
alkyl alcohol ethoxylate	-			No bioaccumulation expected	
alkyl alcohol alkoxylate	No data available				
glycerol	No data available				
sodium	No data available				

cumenesulphonate					
subtilisin	-			Not relevant, does not bioaccumulate	
3-iodo-2-propynylbutylcarbamate	≥ 3.3		OECD 305	Low potential for bioaccumulation	

12.4 Mobility in soil
Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
propane-1,2-diol	No data available				Potential for mobility in soil, soluble in water
alkyl alcohol ethoxylate	No data available				Immobile in soil or sediment
alkyl alcohol alkoxylate	No data available				
glycerol	No data available				Potential for mobility in soil, soluble in water
sodium cumenesulphonate	No data available				
subtilisin	No data available				
3-iodo-2-propynylbutylcarbamate	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)
• 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 15 - 30 %
enzymes, Iodopropynyl Butylcarbamate, Phenoxyethanol

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

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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
• H302 - Harmful if swallowed.
• H315 - Causes skin irritation.
• H317 - May cause an allergic skin reaction.
• H318 - Causes serious eye damage.
• H319 - Causes serious eye irritation.
• H331 - Toxic if inhaled.
• H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
• H335 - May cause respiratory irritation.
• H372 - Causes damage to organs through prolonged or repeated exposure.
• H400 - Very toxic to aquatic life.
• H410 - Very toxic to aquatic life with long lasting effects.
• H411 - Toxic to aquatic life with long lasting effects.
• H412 - Harmful to aquatic life with long lasting effects.

End of Safety Data Sheet