



Enduromax VE1

Revision: 2018-01-25

Version: 05.1

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

1.1 Product identifier

Trade name: Enduromax VE1

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

Identified uses:

For professional and industrial use only.

AISE-P806 - Foam cleaner. Semi-automatic with venting process

AISE-P807 - Foam cleaner. Semi-automatic without venting process

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

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, 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@diversey.com

1.4 Emergency telephone number

For medical or environmental emergency only:

call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Corr. 1A (H314)

Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains sodium hydroxide (Sodium Hydroxide).

Hazard statements:

H314 - Causes severe skin burns and eye damage.

H290 - May be corrosive to metals.

Precautionary statements:

P280 - Wear protective gloves, protective clothing and eye or face protection.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTRE, doctor or physician.

2.3 Other hazards

No other hazards known

The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
sodium hydroxide	215-185-5	1310-73-2	01-2119457892-27	Skin Corr. 1A (H314) Met. Corr. 1 (H290)		20-30
propane-1,2-diol	200-338-0	57-55-6	01-2119456809-23	Not classified as hazardous		3-10
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	263-179-6	61791-46-6	No data available	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)		1-3
sodium alkylethersulphate	Polymer*	68585-34-2	01-2119488639-16	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)		1-3
sodium N-lauroyl sarcosinate	205-281-5	137-16-6	01-2119527780-39	Acute Tox. 2 (H330) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)		0.1-1

* Polymer.

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

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

[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.

[2] Exempted: included in Annex IV of Regulation (EC) No 1907/2006.

[3] Exempted: Annex V of Regulation (EC) No 1907/2006.

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

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 for at least 30 minutes. Take off immediately all contaminated clothing and wash it before re-use. Immediately call a POISON CENTRE, doctor or physician.
Eye contact:	Immediately rinse eyes cautiously with lukewarm water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.
Ingestion:	Rinse mouth. Immediately drink 1 glass of water. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.
Self-protection of first aider:	Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:	No known effects or symptoms in normal use.
Skin contact:	Causes severe burns.
Eye contact:	Causes severe or permanent damage.
Ingestion:	Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Use neutralising agent. Absorb onto dry sand or similar inert material.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Measures to prevent fire and explosions:

No special precautions required.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with skin and eyes. Use only with adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Keep only in original container. Store in a closed container. 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)
sodium hydroxide		2 mg/m ³
propane-1,2-diol	150 ppm total particulates and vapour 474 mg/m ³ total particulates and vapour 10 mg/m ³ particulates	450 ppm total particulate and vapour 1422 mg/m ³ total particulate and vapour 30 mg/m ³ particulate

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 oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	-	-
propane-1,2-diol	-	-	-	-
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	-	-	-	-
sodium alkylethersulphate	-	-	-	15
sodium N-lauroyl sarcosinate	No data available	No data available	No data available	No data available

DNEL 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)
sodium hydroxide	2 %	-	-	-
propane-1,2-diol	No data available	-	No data available	-
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	-	-	-	-
sodium alkylethersulphate	-	-	-	2750
sodium N-lauroyl sarcosinate	No data available	No data available	No data available	No data available

DNEL 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)
sodium hydroxide	2 %	-	-	-
propane-1,2-diol	No data available	-	No data available	-
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No data available	-	-	-
sodium alkylethersulphate	-	1650	-	-
sodium N-lauroyl sarcosinate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	1	-
propane-1,2-diol	-	-	10	168
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	-	-	-	-
sodium alkylethersulphate	-	-	-	175
sodium N-lauroyl sarcosinate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	1	-
propane-1,2-diol	-	-	10	50
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	-	-	-	-
sodium alkylethersulphate	-	-	-	52
sodium N-lauroyl sarcosinate	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)
sodium hydroxide	-	-	-	-
propane-1,2-diol	260	26	183	20000
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	-	-	-	-
sodium alkylethersulphate	0.24	0.024	-	10000
sodium N-lauroyl sarcosinate	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)
sodium hydroxide	-	-	-	-
propane-1,2-diol	572	57.2	50	-
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	-	-	-	-
sodium alkylethersulphate	0.0917	0.092	7.5	-
sodium N-lauroyl sarcosinate	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:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls:

If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required. Where possible: use in automated/closed system and cover open containers. Transport over pipes. Filling with automatic systems. Use tools for manual handling of product.

Appropriate organisational controls:

Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection:

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

Hand protection:

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

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

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

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

Body protection:

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

Respiratory protection:

If exposure to liquid particles or splashes cannot be avoided use: half mask (EN 140) with particle filter P2 (EN 143) or full-face mask (EN 136) with particle filter P1 (EN 143) Consider specific local use conditions. In consultation with the supplier of respiratory protection equipment a different type providing similar protection may be chosen. Specific applications tools may be available to limit exposure. Please refer to the product information sheet for the possibilities.

Environmental exposure controls:

Should not reach sewage water or drainage ditch undiluted or unneutralised.

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Recommended safety measures for handling the diluted product:

Recommended maximum concentration (%): 10

Appropriate engineering controls: Ensure that foam equipment does not generate respirable particles. Ensure that ventilation is present with an exposure reduction efficacy of at least 90%. Where possible: use in automated/closed system and cover open containers. Transport over pipes. Filling with automatic systems. Use tools for manual handling of product.

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

Personal protective equipment

Eye / face protection: Goggles (EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

Hand protection: Chemical-resistant protective gloves (EN 374) are always recommended for foam applications. Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: \geq 480 min
Material thickness: \geq 0.7 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

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

Respiratory protection: If exposure to liquid particles or splashes cannot be avoided use: half mask (EN 140) with particle filter P2 (EN 143) or full-face mask (EN 136) with particle filter P1 (EN 143) Consider specific local use conditions. In consultation with the supplier of respiratory protection equipment a different type providing similar protection may be chosen. Specific applications tools may be available to limit exposure. Please refer to the product information sheet for the possibilities.

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, Yellow	
Odour: Product specific	
Odour threshold: Not applicable	
pH: $>$ 12 (neat)	
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
sodium hydroxide	$>$ 990	Method not given	
propane-1,2-diol	185-190	Method not given	1013
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No data available		
sodium alkylethersulphate	$>$ 100	Method not given	
sodium N-lauroyl sarcosinate	No data available		

Method / remark

Flash point (°C): Not applicable.
Sustained combustion: Not applicable.
 (UN Manual of Tests and Criteria, section 32, L.2)
Evaporation rate: Not determined
Flammability (solid, gas): Not determined
Upper/lower flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Ingredient(s)	Lower limit (% vol)	Upper limit (% vol)
propane-1,2-diol	2.6	12.6

Method / remark

Vapour pressure: Not determined

Substance data, vapour pressure

Ingredient(s)	Value	Method	Temperature
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	(Pa)		(°C)
sodium hydroxide	< 1330	Method not given	20
propane-1,2-diol	18.6	Method not given	20
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No data available		
sodium alkylethersulphate	2300		20
sodium N-lauroyl sarcosinate	No data available		

Method / remark

Vapour density: Not determined

Relative density: ≈ 1.30 (20 °C)

Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sodium hydroxide	1000	Method not given	20
propane-1,2-diol	Soluble	Method not given	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No data available		
sodium alkylethersulphate	Soluble		20
sodium N-lauroyl sarcosinate	No data available		

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

Method / remark

Autoignition temperature: Not determined

Decomposition temperature: Not applicable.

Viscosity: Not determined

Explosive properties: Not explosive.

Oxidising properties: Not oxidising.

9.2 Other information

Surface tension (N/m): Not determined

Corrosion to metals: Corrosive

Not relevant to classification of this product
Weight of evidence

Substance data, dissociation constant, if 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

Reacts with acids.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Mixture data:

Relevant calculated ATE(s):

ATE - Inhalatory, mists (mg/l): >5

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)
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sodium hydroxide		No data available		
propane-1,2-diol	LD ₅₀	> 10000	Rat	Method not given
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	LD ₅₀	> 2000	Rat	Read across
sodium alkylethersulphate	LD ₅₀	> 2000	Rat	OECD 401 (EU B.1)
sodium N-lauroyl sarcosinate	LD ₅₀	> 5000	Rat	OECD 401 (EU B.1)

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium hydroxide		No data available			
propane-1,2-diol	LD ₅₀	> 2000	Rabbit	Method not given	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	LD ₅₀	> 2000	Rat	Read across	
sodium alkylethersulphate	LD ₅₀	> 2000	Rat	OECD 402 (EU B.3)	
sodium N-lauroyl sarcosinate		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide		No data available			
propane-1,2-diol	LC ₅₀	> 317 (mist) No mortality observed	Rabbit	Non guideline test	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available			
sodium alkylethersulphate		No data available			
sodium N-lauroyl sarcosinate	LC ₅₀	0.05 - 0.5 (dust)	Rat	OECD 403 (EU B.2)	4

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
propane-1,2-diol	Not irritant	Rabbit	OECD 404 (EU B.4)	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	Irritant	Rabbit	Read across OECD 404 (EU B.4)	
sodium alkylethersulphate	Irritant	Rabbit	OECD 404 (EU B.4)	
sodium N-lauroyl sarcosinate	Not irritant	Rabbit	OECD 404 (EU B.4)	4 hour(s)

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
propane-1,2-diol	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	Severe damage	Rabbit	OECD 405 (EU B.5)	
sodium alkylethersulphate	Severe damage	Rabbit	OECD 405 (EU B.5)	
sodium N-lauroyl sarcosinate	Severe damage	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	No data available			
propane-1,2-diol	No data available			
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No data available			
sodium alkylethersulphate	No data available			
sodium N-lauroyl sarcosinate	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium hydroxide	Not sensitising		Human repeated patch test	
propane-1,2-diol	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test Read across	
sodium alkylethersulphate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT Read across	
sodium N-lauroyl sarcosinate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	No data available			
propane-1,2-diol	No data available			
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No data available			
sodium alkylethersulphate	No data available			
sodium N-lauroyl sarcosinate	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)
sodium hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat hepatocytes OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 475 (EU B.11)
propane-1,2-diol	No evidence for mutagenicity, negative test results	Method not given	No data available	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) Read across	No evidence of genotoxicity, negative test results	OECD 475 (EU B.11) OECD 478 Read across
sodium alkylethersulphate	No evidence for mutagenicity, negative test results	OECD 476 (Chinese Hamster Ovary)	No evidence for mutagenicity, negative test results	
sodium N-lauroyl sarcosinate	No evidence for mutagenicity, negative test results	OECD 473	No data available	

Carcinogenicity

Ingredient(s)	Effect
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence
propane-1,2-diol	No evidence for carcinogenicity, negative test results
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No evidence for carcinogenicity, negative test results
sodium alkylethersulphate	No evidence for carcinogenicity, negative test results
sodium N-lauroyl sarcosinate	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
sodium hydroxide			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity
propane-1,2-diol			No data available				No evidence for reproductive toxicity
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	NOAEL	Developmental toxicity Teratogenic effects	25	Rat	Read across		No evidence for developmental toxicity
sodium alkylethersulphate	NOAEL	Developmental toxicity	86.6	Rat	OECD 416, (EU B.35), oral		No known significant effects or critical hazards
sodium N-lauroyl sarcosinate			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
sodium hydroxide		No data available				
propane-1,2-diol		No data available				
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available				
sodium alkylethersulphate	NOAEL	50		Method not given		
sodium N-lauroyl sarcosinate	NOAEL	30	Rat	OECD 407 (EU B.7)	90	

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sodium hydroxide		No data available				
propane-1,2-diol		No data available				
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available				

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sodium alkylethersulphate	NOEL	> 12.5		Method not given		
sodium N-lauroyl sarcosinate		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
sodium hydroxide		No data available				
propane-1,2-diol		No data available				
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available				
sodium alkylethersulphate		No data available				
sodium N-lauroyl sarcosinate		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
sodium hydroxide			No data available					
propane-1,2-diol			No data available					
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides			No data available					
sodium alkylethersulphate			No data available					
sodium N-lauroyl sarcosinate			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
propane-1,2-diol	No data available
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	Not applicable
sodium alkylethersulphate	No data available
sodium N-lauroyl sarcosinate	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
propane-1,2-diol	No data available
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	Not applicable
sodium alkylethersulphate	No data available
sodium N-lauroyl sarcosinate	No data available

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

Potential adverse health effects and symptoms

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

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)
sodium hydroxide	LC ₅₀	35	Various species	Method not given	96
propane-1,2-diol	LC ₅₀	> 1000	Fish	Method not given	24
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	LC ₅₀	> 0.1 - 1	Brachydanio rerio	Method not given	96
sodium alkylethersulphate	LC ₅₀	1 - 10	Brachydanio rerio	OECD 203, semi-static	96
sodium N-lauroyl sarcosinate	LC ₅₀	107	Brachydanio	OECD 203 (EU C.1)	96

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Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide	EC ₅₀	40.4	<i>Ceriodaphnia sp.</i>	Method not given	48
propane-1,2-diol	EC ₅₀	> 100	<i>Daphnia</i>	Method not given	48
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	EC ₅₀	> 0.1 - 1	<i>Daphnia magna Straus</i>	Method not given	48
sodium alkylethersulphate	EC ₅₀	1 - 10	<i>Daphnia</i>	OECD 202, static	48
sodium N-lauroyl sarcosinate	EC ₅₀	29.7	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide	EC ₅₀	22	<i>Photobacterium phosphoreum</i>	Method not given	0.25
propane-1,2-diol	EC ₅₀	24200	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	E _r C ₅₀	0.19	<i>Pseudokirchneriella subcapitata</i>	Read across	72
sodium alkylethersulphate	EC ₅₀	7.5	<i>Not specified</i>	DIN 38412, Part 9	72
sodium N-lauroyl sarcosinate	E _b C ₅₀	39	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium hydroxide		No data available			-
propane-1,2-diol		No data available			-
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available			-
sodium alkylethersulphate		No data available			-
sodium N-lauroyl sarcosinate		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium hydroxide		No data available			
propane-1,2-diol	EC ₀	> 20000	<i>Pseudomonas putida</i>	Method not given	18 hour(s)
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	EC ₁₀	24	<i>Pseudomonas putida</i>	Read across	18 hour(s)
sodium alkylethersulphate	EC ₁₀	300 - 500		Method not given	0.5 hour(s)
sodium N-lauroyl sarcosinate		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
propane-1,2-diol		No data available				
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	NOEC	0.42	<i>Pimephales promelas</i>	Read across		
sodium alkylethersulphate	NOEC	0.1 - 0.13	<i>Not specified</i>	Method not given	365 day(s)	
sodium N-lauroyl sarcosinate		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
propane-1,2-diol	NOEC	13020	<i>Ceriodaphnia dubia</i>	Method not given	7 day(s)	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	NOEC	0.7	<i>Daphnia magna</i>	Read across OECD 211	21 day(s)	

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sodium alkylethersulphate	NOEC	0.18 - 0.72	<i>Daphnia sp.</i>	Method not given	21 day(s)	
sodium N-lauroyl sarcosinate		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
sodium hydroxide		No data available			-	
propane-1,2-diol		No data available			-	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available			-	
sodium alkylethersulphate	NOEC	0.72 - 0.9		Method not given	3	
sodium N-lauroyl sarcosinate		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
sodium hydroxide		No data available			-	
propane-1,2-diol		No data available			-	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available			-	
sodium alkylethersulphate		No data available			-	
sodium N-lauroyl sarcosinate		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available			-	
propane-1,2-diol		No data available			-	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available			-	
sodium alkylethersulphate		No data available			-	
sodium N-lauroyl sarcosinate		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available			-	
propane-1,2-diol		No data available			-	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available			-	
sodium alkylethersulphate		No data available			-	
sodium N-lauroyl sarcosinate		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available			-	
propane-1,2-diol		No data available			-	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		No data available			-	
sodium alkylethersulphate		No data available			-	
sodium N-lauroyl sarcosinate		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure	Effects observed
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	(mg/kg dw soil)	time (days)
sodium hydroxide	No data available	-
propane-1,2-diol	No data available	-
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No data available	-
sodium alkylethersulphate	No data available	-
sodium N-lauroyl sarcosinate	No data available	-

12.2 Persistence and degradability**Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
sodium hydroxide	13 second(s)	Method not given	Rapidly photodegradable	

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
sodium hydroxide					Not applicable (inorganic substance)
propane-1,2-diol			> 70 % in 28 day(s)	OECD 301A	Readily biodegradable
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides		Oxygen depletion	> 60%	OECD 301D	Readily biodegradable
sodium alkylethersulphate			> 60 % in 28 day(s)	Method not given	Readily biodegradable
sodium N-lauroyl sarcosinate			90.9 % in 2 day(s)	OECD 301E	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
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	
propane-1,2-diol	-1.07	Method not given	No bioaccumulation expected	
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No data available		No bioaccumulation expected	
sodium alkylethersulphate	0.95 - 3.9	Method not given	Low potential for bioaccumulation	
sodium N-lauroyl sarcosinate	No data available		No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium hydroxide	No data available				
propane-1,2-diol	No data available				
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	-			Not relevant, does not bioaccumulate	
sodium alkylethersulphate	No data available				
sodium N-lauroyl sarcosinate	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K _{oc}	Desorption coefficient Log K _{oc} (des)	Method	Soil/sediment type	Evaluation
sodium hydroxide	No data available				Mobile in soil
propane-1,2-diol	No data available				Potential for mobility in soil, soluble in water
ethanol, 2,2'-iminobis-, N-tallow alkyl derivs., N-oxides	No data available				
sodium alkylethersulphate	No data available				
sodium N-lauroyl sarcosinate	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 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:

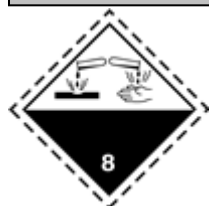
20 01 15* - alkalines.

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: 1824

14.2 UN proper shipping name:

Sodium hydroxide solution

14.3 Transport hazard class(es):

Class: 8

Label(s): 8

14.4 Packing group: II

14.5 Environmental hazards:

Environmentally hazardous: No

Marine pollutant: No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:**ADR**

Classification code: C5

Tunnel restriction code: E

Hazard identification number: 80

IMO/IMDG

EmS: F-A, S-B

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

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

- Regulation (EC) No 1272/2008 - CLP
- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No. 648/2004 - Detergents regulation

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

Ingredients according to EC Detergents Regulation 648/2004

anionic surfactants, non-ionic surfactants, phosphonates

< 5%

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.

15.2 Chemical safety assessment

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

SECTION 16: Other information

Enduromax VE1

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: MSDS4092**Version:** 05.1**Revision:** 2018-01-25**Reason for revision:**

This data sheet contains changes from the previous version in section(s):, 2, 3, 16

Classification procedure

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

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

- H290 - May be corrosive to metals.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H330 - Fatal if inhaled.
- H400 - Very toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- DNEL - Derived No Effect Limit
- EUH - CLP Specific hazard statement
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative
- ATE - Acute Toxicity Estimate

End of Safety Data Sheet