



Enhance Foam Shampoo

Revision: 2022-08-13

Version: 05.0

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

1.1 Product identifier

Trade name: Enhance Foam Shampoo

UFI: 4770-90JD-A00G-82E6

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

Product use: Carpet / Upholstery cleaner.
For professional use only.

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

SWED - Sector-specific worker exposure description :

AISE_SWED_PW_8a_1
AISE_SWED_PW_8b_1
AISE_SWED_PW_4_1
AISE_SWED_PW_10_1
AISE_SWED_PW_11_1
AISE_SWED_PW_19_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

Skin Irrit. 2 (H315)

2.2 Label elements



Signal word: Warning.

Contains 2-phenoxyethanol (Phenoxyethanol)

Hazard statements:

H315 - Causes skin irritation.

2.3 Other hazards

No other hazards known.

SECTION 3: Composition/information on ingredients

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3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	939-648-2	75081-73-1	01-2120883842-43	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)		3-10
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	287-809-4	85586-07-8	01-2119489463-28	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)		3-10

Specific concentration limits

Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate:

• Eye Irrit. 2 (H319) >= 40%

sulphuric acid, mono-C12-14-alkyl esters, sodium salts:

• Eye Dam. 1 (H318) >= 20% > Eye Irrit. 2 (H319) >= 10%

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

ATE, if available, are listed in section 11.

[6] Exempted: biocidal active. See Article 15(2) of Regulation (EC) No 1907/2006.

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. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or 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:**

No known effects or symptoms in normal use.

Skin contact:

Causes irritation.

Eye contact:

No known effects or symptoms in normal use.

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.

6.3 Methods and material for containment and cleaning up

Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

6.4 Reference to other sections

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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 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.

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:

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
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	-	-	-	2.21
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	-	-	-	24

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)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	-	-	-	165.44
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	-	-	-	4060

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)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	-	-	-	99.26
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	-	-	-	2440

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
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	-	-	-	233.36
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	-	-	-	285

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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
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-3-sulfobutanoate	-	-	-	69.05
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	-	-	-	85

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)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-3-sulfobutanoate	0.072	0.072	0.19	5
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	0.131	0.013	0.036	1.35

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-3-sulfobutanoate	0.42	0.042	0.042	-
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	4.61	0.461	0.846	-

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
Manual transfer and dilution	AISE_SWED_PW_8a_1	PW	PROC 8a	60	ERC8a
Manual transfer and dilution	AISE_SWED_PW_8b_1	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:

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.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (% w/w): 10

Appropriate engineering controls: Provide a good standard of general ventilation. Ensure that foam equipment does not generate respirable particles.

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

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REACH use scenarios considered for the diluted product:

	SWED	LCS	PROC	Duration (min)	ERC
Machine application	AISE_SWED_PW_10_1	PW	PROC 10	480	ERC8a
Manual application by brushing, wiping or mopping					
Foam spraying	AISE_SWED_PW_11_1	PW	PROC 11	60	ERC8a
Spray application					
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:

No special requirements under normal use conditions.

Body protection:

No special requirements under normal use conditions.

Respiratory protection:

Trigger spray bottle application: No special requirements under normal use conditions. Apply technical measures to comply with the occupational exposure limits, if available.

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)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	240	OECD 103 (EU A.2)	1013
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	> 100	Method not given	

Method / remark

Flammability (solid, gas): Not applicable to liquids

Flammability (liquid): Not flammable.

Flash point (°C): > 93 °C

closed cup

Sustained combustion: The product does not sustain combustion
(UN Manual of Tests and Criteria, section 32, L.2)

Weight of evidence

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

Substance data, flammability or explosive limits, if available:

Method / remark

Autoignition temperature: Not determined

Decomposition temperature: Not applicable.

pH: ≈ 7 (neat)

ISO 4316

Dilution pH: ≈ 7 (10 %)

ISO 4316

Kinematic viscosity: Not determined

Solubility in / Miscibility with water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	Soluble	OECD 105 (EU A.6)	20
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	Soluble	Method not given	

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	Method	Temperature
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	(Pa)		(°C)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	≤ 0.074	OECD 104 (EU A.4)	20
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available		

Relative density: ≈ 1.03 (20 °C)

Relative vapour density: -

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. Vapours may form explosive mixtures with air.

Oxidising properties: Not oxidising.

Corrosion to metals: Not corrosive

Weight of evidence

9.2.2 Other safety characteristics

No other relevant information available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid

None known under normal storage and use conditions.

10.5 Incompatible materials

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 toxicological effects**

Mixture data:

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

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)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	LD ₅₀	> 2000	Rat	OECD 423 (EU B.1 tris)		Not established
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	LD ₅₀	> 1800	Rat	Method not given		13000

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate		No data available				Not established
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	LD ₅₀	> 2000	Rabbit	Method not given		66000

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Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate		No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		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)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	Not established	Not established	Not established	Not established
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	Irritant		OECD 439	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	Irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	Irritant	Rabbit	OECD 405 (EU B.5)	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	Severe damage	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	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)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	No data available		No data available	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 476 (Mouse lymphoma)	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)

Carcinogenicity

Ingredient(s)	Effect
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy}	No data available

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-4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No evidence for carcinogenicity, negative test results

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate			No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	NOEL	Teratogenic effects Developmental toxicity	250	Rat	OECD 414 (EU B.31), oral		

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
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate		No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	NOAEL	488		OECD 408 (EU B.26)	90	

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate		No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		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
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate		No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		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
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate			No data available					
sulphuric acid, mono-C12-14-alkyl esters, sodium salts			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	No data available
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available

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STOT-repeated exposure

Ingredient(s)	Affected organ(s)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	No data available
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	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)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	LC ₅₀	> 32	<i>Brachydanio rerio</i>	OECD 203, semi-static	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	LC ₅₀	3.6	<i>Fish</i>	OECD 203 (EU C.1)	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	EC ₅₀	19	<i>Daphnia magna Straus</i>	OECD 202, static	48
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	EC ₅₀	4.7	<i>Daphnia</i>	84/449/EEC, C2	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	EC ₅₀	> 26	<i>Desmodesmus subspicatus</i>	OECD 201, static	72
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	E _r C ₅₀	> 20	<i>Not specified</i>	88/302/EEC, Part C, static	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate		No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate		No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	EC ₁₀	1084	<i>Bacteria</i>	DIN 38412 / Part 8	16 hour(s)

Aquatic long-term toxicity

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Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate		No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	NOEC	1.357	<i>Pimephales promelas</i>	OECD 210	34 day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	NOEC	3.6	<i>Daphnia magna</i>	OECD 211, semi-static	21 day(s)	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	NOEC	0.508	<i>Daphnia sp.</i>	Method not given	7 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
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate		No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available				

Terrestrial toxicity

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

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability**Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
Tetrasodium 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-2-sulfobutanoate 4-{ 2-[(Z)-(1-oxidododecylidene)amino]ethoxy} -4-oxo-3-sulfobutanoate	Activated sludge, aerobe	CO ₂ production	94% in 28 day(s)	OECD 301B	Readily biodegradable
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	Activated sludge, aerobe	Oxygen depletion	> 90% in 28 day(s)	OECD 301D	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potentialPartition coefficient n-octanol/water (log K_{ow})

Ingredient(s)	Value	Method	Evaluation	Remark

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Tetrasodium 4-{2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-2-sulfobutanoate 4-{2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-3-sulfobutanoate	-5.371	OECD 107	No bioaccumulation expected	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	< -2.42	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
Tetrasodium 4-{2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-2-sulfobutanoate 4-{2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-3-sulfobutanoate	No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
Tetrasodium 4-{2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-2-sulfobutanoate 4-{2-[(Z)-(1-oxidododecylidene)amino]ethoxy}-4-oxo-3-sulfobutanoate	No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	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: 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 Transport in bulk according to Annex II of MARPOL and the IBC Code: Non-dangerous goods

SECTION 15: Regulatory information

Enhance Foam Shampoo

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

anionic surfactants 5 - 15 %
 perfumes , Phenoxyethanol, Hexyl Cinnamal, Benzisothiazolinone, Laurylamine
 Dipropylenediamine

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents (UK amended). Data to support this assertion are held at the disposal of the competent authorities of the UK and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Comah - classification: Not classified

15.2 Chemical safety assessment

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

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

SDS code: 683946

Version: 05.0

Revision: 2022-08-13

Reason for revision:

Overall design adjusted in accordance with Amendment 2020/878, Annex II of Regulation (EC) No 1907/2006, This data sheet contains changes from the previous version in section(s):, 1, 2, 3, 6, 8, 9, 11, 12, 15, 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:

- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H412 - Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- ATE - Acute Toxicity Estimate
- DNEL - Derived No Effect Limit
- EC50 - effective concentration, 50%
- ERC - Environmental release categories
- EUH - CLP Specific hazard statement
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LCS - Life cycle stage
- LD50 - Lethal Dose, 50% / Median Lethal dose
- NOAEL - No observed adverse effect level
- NOEL - No observed effect level
- OECD - Organisation for Economic Cooperation and Development
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- PROC - Process categories
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative

End of Safety Data Sheet