



## Enhance Foam Shampoo

Revision: 2018-09-10

Version: 03.0

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

#### 1.1 Product identifier

Trade name: Enhance Foam Shampoo

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

##### Identified uses:

For professional use only.

AISE-P410 - Carpet cleaner. Semi-automatic 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, 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

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)

Eye Dam. 1 (H318)

#### 2.2 Label elements



Signal word: Danger.

Contains 5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1) (Methylchloroisothiazolinone, Methylisothiazolinone), sulphuric acid, mono-C12-14-alkyl esters, sodium salts (Sodium Lauryl Sulfate)

#### Hazard statements:

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

EUH208 - May produce an allergic reaction.

#### Precautionary statements:

P280 - Wear eye or face protection.

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.

#### Further indications on the label:

Contains: preservative.

#### 2.3 Other hazards

No other hazards known.

### SECTION 3: Composition/information on ingredients

## Enhance Foam Shampoo

## 3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	939-648-2	-	01-2119980061-44	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
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	220-239-6 247-500-7	55965-84-9	No data available	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Met. Corr. 1 (H290)		< 0.01

\* Polymer.

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.

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:**

Take off immediately all contaminated clothing and wash it before re-use.

**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. Immediately call a POISON CENTRE, doctor or physician.

**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:**

Causes severe or permanent damage.

**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

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

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).

### 6.4 Reference to other sections

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

## Enhance Foam Shampoo

**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 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:

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
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	-	No data available	-	4.41
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	-	-	-	24
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	-	-	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)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	-	-	-	331
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available	-	No data available	4060
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	-	-	-	-

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)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	-	-	-	199
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available	-	No data available	2440
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	-	-	-	No data available

DNEL inhalatory exposure - Worker (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	-	-	-	156
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	-	-	-	285
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	-	-	No data available	-

DNEL inhalatory exposure - Consumer (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl]	-	-	-	46

## Enhance Foam Shampoo

ester, sodium salt				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	-	-	-	85
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	-	-	-	-

**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)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	0.019	0.0019	0.19	5
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	0.102	0.01	0.036	1084
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	-	-	-	-

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	0.0107	0.0107	0.0103	-
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	3.58	0.358	0.654	-
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	-	-	-	-

**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.

**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).

**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:**

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 (%):** 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.

**Personal protective equipment****Eye / face protection:**

No special requirements under normal use conditions. Covered by respiratory protection.

**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

## Enhance Foam Shampoo

**Physical State:** Liquid**Colour:** Clear, Colourless**Odour:** Slightly perfumed**Odour threshold:** Not applicable**pH:** ≈ 6 (neat)**Dilution pH:** ≈ 7**Melting point/freezing point (°C):** Not determined**Initial boiling point and boiling range (°C):** Not determined

ISO 4316

ISO 4316

Not relevant to classification of this product

See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available		
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	> 100	Method not given	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	No data available		

**Method / remark****Flammability (liquid):** Not flammable.**Flash point (°C):** > 100**Sustained combustion:** The product does not sustain combustion ( UN Manual of Tests and Criteria, section 32, L.2 )**Evaporation rate:** Not relevant for classification of this product.**Flammability (solid, gas):** Not applicable to liquids**Upper/lower flammability limit (%):** Not determined

closed cup

Substance data, flammability or explosive limits, if available:

**Method / remark****Vapour pressure:** See substance data.

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available		
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available		
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	No data available		

**Method / remark****Vapour density:** Not determined**Relative density:** ≈ 1.03 (20 °C)**Solubility in / Miscibility with Water:** Fully miscibleNot relevant to classification of this product  
OECD 109 (EU A.3)

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available		
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	Soluble	Method not given	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	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. Vapours may form explosive mixtures with air.**Oxidising properties:** Not oxidising.**9.2 Other information****Surface tension (N/m):** Not determined**Corrosion to metals:** Not corrosive

OECD 115

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.

## Enhance Foam Shampoo

**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)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	LD <sub>50</sub>	> 2000	Rat	OECD 423 (EU B.1 tris)	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	LD <sub>50</sub>	> 1800	Rat	Method not given	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	LD <sub>50</sub>	457	Rat	Method not given	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	LD <sub>50</sub>	> 2000	Rat	OECD 402 (EU B.3)	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	LD <sub>50</sub>	> 2000	Rabbit	Method not given	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	LD <sub>50</sub>	660	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt		No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		No data available			

**Irritation and corrosivity**

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	Irritant			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	Irritant	Rabbit	OECD 404 (EU B.4)	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	Corrosive		Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	Irritant		HET-CAM	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	Severe damage	Rabbit	OECD 405 (EU B.5)	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	Severe damage		Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available			

## Enhance Foam Shampoo

sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available			
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	No data available			

**Sensitisation**

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	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	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	Sensitising	Guinea pig	Method not given OECD 406 (EU B.6) / GPMT	

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available			
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	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)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No evidence of genotoxicity, negative test results	OECD 471 (EU B.12/13) OECD 476 draft OECD 487	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)
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	No evidence for mutagenicity	Method not given	No data available	

## Carcinogenicity

Ingredient(s)	Effect
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No evidence for carcinogenicity, negative test results
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	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
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	NOAEL	Maternal toxicity	1074	Rat	OECD 414 (EU B.31), oral		No known significant effects or critical hazards
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	NOEL	Teratogenic effects Developmental toxicity	250	Rat	OECD 414 (EU B.31), oral		
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)			No data available				No evidence for reproductive 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
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt		No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	NOAEL	488		OECD 408 (EU B.26)	90	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		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
butanedioic acid, 2(or 3)-sulfo-,		No data				

## Enhance Foam Shampoo

4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt		available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		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
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt		No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available				
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		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
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt			No data available					
sulphuric acid, mono-C12-14-alkyl esters, sodium salts			No data available					
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)			No data available					

## STOT-single exposure

Ingredient(s)	Affected organ(s)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	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)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt		No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	LC <sub>50</sub>	3.6	<i>Fish</i>	OECD 203 (EU C.1)	96
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	LC <sub>50</sub>	0.28	<i>Lepomis macrochirus</i>	OECD 203 (EU C.1)	96

## Aquatic short-term toxicity - crustacea



## Enhance Foam Shampoo

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	EC <sub>50</sub>	19	<i>Daphnia magna Straus</i>	OECD 202, static	48
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	EC <sub>50</sub>	4.7	<i>Daphnia</i>	84/449/EEC, C2	48
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	EC <sub>50</sub>	0.126	<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)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	E <sub>r</sub> C <sub>50</sub>	> .?	<i>Desmodesmus subspicatus</i>	OECD 201, static	72
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	E <sub>r</sub> C <sub>50</sub>	> 20	<i>Not specified</i>	88/302/EEC, Part C, static	72
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	EC <sub>50</sub>	0.003	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72

## Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt		No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			-
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		No data available			-

## Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt		No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	EC <sub>10</sub>	1084	<i>Bacteria</i>	DIN 38412 / Part 8	16 hour(s)
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	EC <sub>20</sub>	0.97	<i>Activated sludge</i>	OECD 209	3 hour(s)

## Aquatic long-term toxicity

## Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	EC <sub>50</sub>	> 32	<i>Brachydanio rerio</i>	OECD 203	96 hour(s)	
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	NOEC	0.11 - 0.35	<i>Not specified</i>	OECD 210	34 day(s)	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		No data available				

## Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt		No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	NOEC	0.508	<i>Daphnia sp.</i>	Method not given	7 day(s)	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		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
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt		No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			-	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		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
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			-	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No		No data			-	

## Enhance Foam Shampoo

247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		available				
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Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			-	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			-	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			-	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphuric acid, mono-C12-14-alkyl esters, sodium salts		No data available			-	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		No data available			-	

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

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

**Biodegradation**

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt				OECD 301B	Readily biodegradable
sulphuric acid, mono-C12-14-alkyl esters, sodium salts			75.7 % in 28 day(s)	OECD 301B	Readily biodegradable
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)		Oxygen depletion	> 60%	OECD 301D	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

**12.3 Bioaccumulative potential**Partition coefficient n-octanol/water (log K<sub>ow</sub>)

Ingredient(s)	Value	Method	Evaluation	Remark
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available			
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	< -2.42	Method not given	No bioaccumulation expected	
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	-0.71 - +0.75	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

## Enhance Foam Shampoo

Ingredient(s)	Value	Species	Method	Evaluation	Remark
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available				
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	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
butanedioic acid, 2(or 3)-sulfo-, 4-[2-[(1-oxododecyl)amino]ethyl] ester, sodium salt	No data available				
sulphuric acid, mono-C12-14-alkyl esters, sodium salts	No data available				
5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	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 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****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations:**

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

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

UFI: 4770-90JD-A00G-82E6

**Ingredients according to EC Detergents Regulation 648/2004**

anionic surfactants  
 perfumes, Hexyl Cinnamal, Phenoxyethanol, Benzisothiazolinone, Methylchloroisothiazolinone, Methylisothiazolinone

5 - 15 %

**Enhance Foam Shampoo**

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**

*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:** 03.0

**Revision:** 2018-09-10

**Reason for revision:**

This data sheet contains changes from the previous version in section(s):, 2, 3, 4, 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:**

- H290 - May be corrosive to metals.
- H301 - Toxic if swallowed.
- H302 - Harmful if swallowed.
- H311 - Toxic in contact with skin.
- H314 - Causes severe skin burns and eye damage.
- 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.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.
- 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
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- OECD - Organization for Economic Cooperation and Development

**End of Safety Data Sheet**