

## Enhance Foam Shampoo

Revision: 2015-02-22

Version: 02.0

### 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: MSDSinfoUK@sealedair.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

The product has been classified and labelled in accordance with Regulation (EC) No 1272/2008.

Skin Irrit. 2 (H315)

Eye Irrit. 2 (H319)

#### Classification in accordance with Directive 1999/45/EC and corresponding national legislation

**Indication of danger**

Xi - Irritant

**Risk phrases:**

R36 - Irritating to eyes.

#### 2.2 Label elements



**Signal word:** Warning

Contains EUH208: 1,2-benzisothiazol-3(2H)-one (Benzisothiazolinone)

**Hazard statements:**

H315 + H319 - Causes skin and serious eye irritation.

EUH208 - May produce an allergic reaction.

#### 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.

## Enhance Foam Shampoo

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

| Ingredient(s)  | EC number | CAS number | REACH number      | Classification  | Classification (1999/45/EC)     | Notes | Weight percent |
|--|-----------|------------|-------------------|---|---------------------------------|-------|----------------|
| disodium<br>1-[2-[(1-oxododecyl)amino]ethyl<br>] 2-sulphonatosuccinate | 274-310-4 | 25882-44-4 | No data available | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)   | Xi;R36/38                       |       | 3-10           |
| sulphuric acid,<br>mono-C12-14-alkyl esters,<br>sodium salts           | 287-809-4 | 85586-07-8 | 01-2119489463-28  | Acute Tox. 4 (H302)<br>Skin Irrit. 2 (H315)<br>Eye Dam. 1 (H318)<br>Aquatic Chronic 3<br>(H412)                   | Xn;R22<br>Xi;R38-41             |       | 3-10           |
| 1,2-benzisothiazol-3(2H)-one   | 220-120-9 | 2634-33-5  | No data available | Acute Tox. 4 (H302)<br>Skin Irrit. 2 (H315)<br>Eye Dam. 1 (H318)<br>Skin Sens. 1 (H317)<br>Aquatic Acute 1 (H400) | Xn;R22<br>Xi;R38-41-43<br>N;R50 |       | 0.01-0.1       |

\* Polymer.

For the full text of the R, 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. Take off immediately all contaminated clothing and wash it before re-use. If skin irritation occurs: Get medical advice or attention.

**Eye contact:**

Immediately rinse eyes cautiously with lukewarm water for several 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. 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 irritation.

**Ingestion:**

No known effects or symptoms in normal use.

**4.3 Indication of any immediate medical attention and special treatment needed**

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

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

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

**5.2 Special hazards arising from the substance or mixture**

No special hazards known.

**5.3 Advice for firefighters**

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

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

No special measures required.

**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 Sealed Air. 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. Use personal protective equipment as required. 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:

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 |
|---|----------------------------|-------------------------------|---------------------------|------------------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available          | No data available             | No data available         | No data available            |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | -                          | -                             | -                         | 24                           |
| 1,2-benzisothiazol-3(2H)-one                                    | 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) |
|---|----------------------------|--|---------------------------|---|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available          | No data available                        | No data available         | No data available                       |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No data available          | -  | No data available         | 4060                                    |
| 1,2-benzisothiazol-3(2H)-one                                    | 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) |
|---|----------------------------|--|---------------------------|---|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available          | No data available                        | No data available         | No data available                       |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No data available          | -  | No data available         | 2440                                    |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available          | No data available                        | No data available         | 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 |
|---|----------------------------|-------------------------------|---------------------------|------------------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available          | No data available             | No data available         | No data available            |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | -                          | -                             | -                         | 285                          |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available          | No data available             | No data available         | 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 |
|---|----------------------------|-------------------------------|---------------------------|------------------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available          | No data available             | No data available         | No data available            |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | -                          | -                             | -                         | 85                           |
| 1,2-benzisothiazol-3(2H)-one                                    | 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) |
|---------------|-----------------------------|------------------------------|---------------------|-------------------------------|
|               |                             |                              |                     |                               |

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|   |                   |                   |                   |                   |
|---|-------------------|-------------------|-------------------|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available | No data available | No data available | No data available |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | 0.102             | 0.01              | 0.036             | 1084              |
| 1,2-benzisothiazol-3(2H)-one                                    | 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 <sup>3</sup> ) |
|---|------------------------------|--------------------------|-------------------|--------------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available            | No data available        | No data available | No data available        |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | 3.58                         | 0.358                    | 0.654             | -                        |
| 1,2-benzisothiazol-3(2H)-one                                    | 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.

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:** No special requirements under normal use conditions.  
**Appropriate organisational controls:** Avoid direct contact and/or splashes where possible. Train personnel.

**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.

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

**Personal protective equipment**

**Eye / face protection:** No special requirements under normal use conditions.

**Hand protection:** No special requirements under normal use conditions.

**Body protection:** No special requirements under normal use conditions.

**Respiratory protection:** No special requirements under normal use conditions.

**Environmental exposure controls:** No special requirements under normal use conditions.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Information in this section refers to the product, unless it is specifically stated that substance data is listed

**Method / remark**

**Physical State:** Liquid

**Colour:** Clear, Colourless

**Odour:** Slightly perfumed

**Odour threshold:** Not applicable

**pH:** ≈ 6 (neat)

**Melting point/freezing point (°C):** Not determined

**Initial boiling point and boiling range (°C):** Not determined

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Substance data, boiling point

| Ingredient(s)   | Value (°C)        | Method           | Atmospheric pressure (hPa) |
|---|-------------------|------------------|----------------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | 100               | Method not given |                            |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | > 100             | Method not given |                            |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available |                  |                            |

Method / remark

**Flash point (°C):** Not applicable.**Sustained combustion:** Not determined**Evaporation rate:** Not determined**Flammability (solid, gas):** Not determined**Upper/lower flammability limit (%):** Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

**Vapour pressure:** Not determined

Substance data, vapour pressure

| Ingredient(s)   | Value (Pa)        | Method | Temperature (°C) |
|---|-------------------|--------|------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available |        |                  |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No data available |        |                  |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available |        |                  |

Method / remark

**Vapour density:** Not determined**Relative density:** 1.03 g/cm<sup>3</sup> (20 °C)**Solubility in / Miscibility with Water:** Fully miscible

Substance data, solubility in water

| Ingredient(s)   | Value (g/l)       | Method           | Temperature (°C) |
|---|-------------------|------------------|------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | Soluble           |                  | 20               |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | Soluble           | Method not given |                  |
| 1,2-benzisothiazol-3(2H)-one                                    | 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 determined**Viscosity:** Not determined**Explosive properties:** Not explosive.**Oxidising properties:** Not oxidising**9.2 Other information****Surface tension (N/m):** Not determined**Corrosion to metals:** Not corrosive

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**

None known under normal use conditions.

**10.6 Hazardous decomposition products**

None known under normal storage and use conditions.

**SECTION 11: Toxicological information**

## Enhance Foam Shampoo

## 11.1 Information on toxicological effects

Mixture data:

Relevant calculated ATE(s):

## Eye irritation and corrosivity

Result: Eye irritant 2

Method: OECD 438

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) |
|---|------------------|-------------------|---------|------------------|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | LD <sub>50</sub> | > 2000            | Mouse   | Read across      |                   |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | LD <sub>50</sub> | > 1800            | Rat     | Method not given | -                 |
| 1,2-benzisothiazol-3(2H)-one                                    |                  | No data available |         |                  |                   |

Acute dermal toxicity

| Ingredient(s)   | Endpoint         | Value (mg/kg)     | Species | Method           | Exposure time (h) |
|---|------------------|-------------------|---------|------------------|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |                  | No data available |         |                  |                   |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | LD <sub>50</sub> | > 2000            | Rabbit  | Method not given | -                 |
| 1,2-benzisothiazol-3(2H)-one                                    |                  | No data available |         |                  |                   |

Acute inhalative toxicity

| Ingredient(s)   | Endpoint | Value (mg/l)      | Species | Method | Exposure time (h) |
|---|----------|-------------------|---------|--------|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |          | No data available |         |        |                   |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          |          | No data available |         |        | -                 |
| 1,2-benzisothiazol-3(2H)-one                                    |          | No data available |         |        |                   |

## Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s)   | Result            | Species | Method            | Exposure time |
|---|-------------------|---------|-------------------|---------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | Irritant          | Rabbit  | Read across       |               |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | Irritant          | Rabbit  | OECD 404 (EU B.4) |               |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available |         |                   |               |

Eye irritation and corrosivity

| Ingredient(s)   | Result            | Species | Method            | Exposure time |
|---|-------------------|---------|-------------------|---------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | Irritant          | Rabbit  | Read across       |               |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | Severe damage     | Rabbit  | OECD 405 (EU B.5) |               |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available |         |                   |               |

Respiratory tract irritation and corrosivity

| Ingredient(s)   | Result            | Species | Method | Exposure time |
|---|-------------------|---------|--------|---------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available |         |        |               |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No data available |         |        |               |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available |         |        |               |

## Sensitisation

Sensitisation by skin contact

| Ingredient(s)   | Result            | Species    | Method                   | Exposure time (h) |
|---|-------------------|------------|--------------------------|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available |            |                          |                   |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | Not sensitising   | Guinea pig | OECD 406 (EU B.6) / GPMT | -                 |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available |            |                          |                   |

Sensitisation by inhalation

| Ingredient(s)   | Result            | Species | Method | Exposure time |
|---|-------------------|---------|--------|---------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available |         |        |               |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No data available |         |        | -             |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available |         |        |               |

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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## Mutagenicity

| Ingredient(s)   | Result (in-vitro)                                   | Method (in-vitro)                               | Result (in-vivo)                                    | Method (in-vivo)   |
|---|---|---|---|--------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | 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) |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available                                   |   | No data available                                   |                    |

## Carcinogenicity

| Ingredient(s)   | Effect   |
|---|--|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available                                      |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No evidence for carcinogenicity, negative test results |
| 1,2-benzisothiazol-3(2H)-one                                    | 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 |
|---|----------|---|--------------------|---------|--------------------------|---------------|------------------------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |          |   | No data available  |         |                          |               |                                    |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | NOEL     | Teratogenic effects<br>Developmental toxicity | 250                | Rat     | OECD 414 (EU B.31), oral |               |                                    |
| 1,2-benzisothiazol-3(2H)-one                                    |          |   | 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 |
|---|----------|--------------------|---------|--------------------|----------------------|--------------------------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |          | No data available  |         |                    |                      |                                      |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | NOAEL    | 488                |         | OECD 408 (EU B.26) | 90                   |                                      |
| 1,2-benzisothiazol-3(2H)-one                                    |          | 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 |
|---|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |          | No data available  |         |        |                      |                                      |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          |          | No data available  |         |        | -                    |                                      |
| 1,2-benzisothiazol-3(2H)-one                                    |          | 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 |
|---|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |          | No data available  |         |        |                      |                                      |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          |          | No data available  |         |        | -                    |                                      |
| 1,2-benzisothiazol-3(2H)-one                                    |          | 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 |
|---|----------------|----------|--------------------|---------|--------|---------------|--------------------------------------|--------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |                |          | No data available  |         |        |               |                                      |        |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          |                |          | No data available  |         |        |               |                                      |        |
| 1,2-benzisothiazol-3(2H)-one                                    |                |          | No data available  |         |        |               |                                      |        |

## STOT-single exposure

| Ingredient(s)   | Affected organ(s) |
|---|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No data available |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available |

## STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|---------------|-------------------|
|               |                   |

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|   |                   |
|---|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No data available |
| 1,2-benzisothiazol-3(2H)-one                                    | 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) |
|---|------------------|-------------------|-------------|----------|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |                  | No data available |             |          |                   |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | LC <sub>50</sub> | 3.6               | <i>Fish</i> | OECD 203 | 96                |
| 1,2-benzisothiazol-3(2H)-one                                    |                  | No data available |             |          |                   |

Aquatic short-term toxicity - crustacea

| Ingredient(s)   | Endpoint         | Value (mg/l)      | Species        | Method         | Exposure time (h) |
|---|------------------|-------------------|----------------|----------------|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |                  | No data available |                |                |                   |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | EC <sub>50</sub> | 4.7               | <i>Daphnia</i> | 84/449/EEC, C2 | 48                |
| 1,2-benzisothiazol-3(2H)-one                                    |                  | No data available |                |                |                   |

Aquatic short-term toxicity - algae

| Ingredient(s)   | Endpoint                       | Value (mg/l)      | Species              | Method                     | Exposure time (h) |
|---|--------------------------------|-------------------|----------------------|----------------------------|-------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |                                | No data available |                      |                            |                   |
| 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                |
| 1,2-benzisothiazol-3(2H)-one                                    |                                | No data available |                      |                            |                   |

Aquatic short-term toxicity - marine species

| Ingredient(s)   | Endpoint | Value (mg/l)      | Species | Method | Exposure time (days) |
|---|----------|-------------------|---------|--------|----------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |          | No data available |         |        |                      |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          |          | No data available |         |        | -                    |
| 1,2-benzisothiazol-3(2H)-one                                    |          | No data available |         |        |                      |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s)   | Endpoint         | Value (mg/l)      | Inoculum        | Method             | Exposure time |
|---|------------------|-------------------|-----------------|--------------------|---------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |                  | 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)    |
| 1,2-benzisothiazol-3(2H)-one                                    |                  | No data available |                 |                    |               |

**Aquatic long-term toxicity**

Aquatic long-term toxicity - fish

| Ingredient(s)   | Endpoint | Value (mg/l)      | Species              | Method   | Exposure time | Effects observed |
|---|----------|-------------------|----------------------|----------|---------------|------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |          | No data available |                      |          |               |                  |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | NOEC     | 0.11 - 0.35       | <i>Not specified</i> | OECD 210 | 34 day(s)     |                  |
| 1,2-benzisothiazol-3(2H)-one                                    |          | No data available |                      |          |               |                  |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure | Effects observed |
|---------------|----------|-------|---------|--------|----------|------------------|
|---------------|----------|-------|---------|--------|----------|------------------|



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|   |      | (mg/l)            |                    |                  | time     |  |
|---|------|-------------------|--------------------|------------------|----------|--|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |      | 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) |  |
| 1,2-benzisothiazol-3(2H)-one                                    |      | 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 |
|---|----------|---------------------------|---------|--------|----------------------|------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |          | No data available         |         |        |                      |                  |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          |          | No data available         |         |        | -                    |                  |
| 1,2-benzisothiazol-3(2H)-one                                    |          | 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     |         |        | -                    |                  |

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     |         |        | -                    |                  |

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 |         |        | -                    |                  |

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     |         |        | -                    |                  |

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     |         |        | -                    |                  |

**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            |
|---|----------|-------------------|---------------------|-----------|-----------------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate |          |                   | 94 % in 28 day(s)   | OECD 301B | Readily biodegradable |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          |          |                   | 75.7 % in 28 day(s) | OECD 301B | Readily biodegradable |
| 1,2-benzisothiazol-3(2H)-one                                    |          |                   |                     |           | No data available     |

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

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.

**12.3 Bioaccumulative potential**

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Partition coefficient n-octanol/water (log Kow)

| Ingredient(s)   | Value             | Method           | Evaluation                  | Remark |
|---|-------------------|------------------|-----------------------------|--------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available |                  |                             |        |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | < -2.42           | Method not given | No bioaccumulation expected |        |
| 1,2-benzisothiazol-3(2H)-one                                    | No data available |                  |                             |        |

Bioconcentration factor (BCF)

| Ingredient(s)   | Value             | Species | Method | Evaluation | Remark |
|---|-------------------|---------|--------|------------|--------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available |         |        |            |        |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No data available |         |        |            |        |
| 1,2-benzisothiazol-3(2H)-one                                    | 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 |
|---|--------------------------------|-------------------------------------|--------|--------------------|------------|
| disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate | No data available              |                                     |        |                    |            |
| sulphuric acid, mono-C12-14-alkyl esters, sodium salts          | No data available              |                                     |        |                    |            |
| 1,2-benzisothiazol-3(2H)-one                                    | 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.  
20 01 29\* - detergents containing dangerous substances.

**European Waste Catalogue:****Empty packaging****Recommendation:**

Dispose of observing national or local regulations.

**Suitable cleaning agents:**

Water, if necessary with cleaning agent.

**SECTION 14: Transport information****ADR, RID, ADN, IMO/IMDG, ICAO/IATA****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**Class:** -**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 73/78 and the IBC Code:** The product is not transported in bulk tankers.**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****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

5 - 15%

perfumes, Hexyl Cinnamal, Butylphenyl Methylpropional, Benzisothiazolinone

**15.2 Chemical safety assessment**

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

**SECTION 16: Other information**

## Enhance Foam Shampoo

*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*

**MSDS code:** 683946

**Version:** 02.0

**Revision:** 2015-02-22

**Reason for revision:**

Overall design adjusted in accordance with Amendment 453/2010, Annex II of Regulation (EC) No 1907/2006, This data sheet contains changes from the previous version in section(s):, 3

**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 R, H and EUH phrases mentioned in section 3:**

- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H400 - Very toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.
- R22 - Harmful if swallowed.
- R36 - Irritating to eyes.
- R38 - Irritating to skin.
- R41 - Risk of serious damage to eyes.
- R43 - May cause sensitisation by skin contact.
- R50 - Very toxic to aquatic organisms.

**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**