

## Unifoam VF34

Revision: 2024-08-07

Version: 13.0

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

#### 1.1 Product identifier

**Trade name:** Unifoam VF34

UFI: SPW3-Y0MJ-M005-0466

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

**Product use:** Open plant cleaning chemical.  
For industrial use only..  
**Uses advised against:** Uses other than those identified are not recommended.

#### SWED - Sector-specific worker exposure description :

AISE\_SWED\_IS\_1\_1  
AISE\_SWED\_IS\_8b\_1  
AISE\_SWED\_IS\_4\_1  
AISE\_SWED\_IS\_7\_4  
AISE\_SWED\_IS\_7\_5

#### 1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, De Corridor 4, 3621ZB Breukelen [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@solenis.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 corrosion, Category 1A (H314)  
Serious eye damage, Category 1 (H318)  
Corrosive to metals, Category 1 (H290)

#### 2.2 Label elements



**Signal word:** Danger.

Contains sodium hydroxide (Sodium Hydroxide), potassium hydroxide (Potassium Hydroxide), alkyl polyglucoside (2-ethylhexyl glucoside), sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts (Sodium C14-16 Olefin Sulfonate), sulphonic acids, C14-17-sec-alkane, sodium salts (Sodium C14-17 Alkyl Sec Sulfonate)

#### Hazard statements:

H314 - Causes severe skin burns and eye damage.  
H290 - May be corrosive to metals.

#### Precautionary statements:

P280 - Wear protective gloves, protective clothing and eye or face protection.  
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTRE, doctor or physician.

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**2.3 Other hazards**

No other hazards known.

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

| Ingredient(s)  | EC number | CAS number  | REACH number                                 | Classification   | Notes | Weight percent |
|--|-----------|-------------|--|--|-------|----------------|
| sodium hydroxide   | 215-185-5 | 1310-73-2   | 01-211945789<br>2-27                         | Skin corrosion, Category 1A (H314)<br>Corrosive to metals, Category 1 (H290)   |       | 10-20          |
| tetrasodium ethylene diamine tetraacetate                              | 200-573-9 | 64-02-8     | 01-211948676<br>2-27                         | Acute toxicity - Oral, Category 4 (H302)<br>Acute toxicity - Inhalation, Category 4 (H332)<br>Specific target organ toxicity - Repeated exposure, Category 2 (H373)<br>Serious eye damage, Category 1 (H318) |       | 3-10           |
| potassium hydroxide  | 215-181-3 | 1310-58-3   | 01-211948713<br>6-33                         | Skin corrosion, Category 1A (H314)<br>Acute toxicity - Oral, Category 4 (H302)<br>Corrosive to metals, Category 1 (H290)   |       | 1-3            |
| alkyl polyglucoside  | 414-420-0 | 161074-93-7 | 01-000001614<br>7-72<br>01-211998714<br>4-31 | Serious eye damage, Category 1 (H318)  |       | 1-3            |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | 931-534-0 | -           | 01-211951340<br>1-57                         | Skin irritation, Category 2 (H315)<br>Serious eye damage, Category 1 (H318)<br>Chronic aquatic toxicity, Category 3 (H412)   |       | 1-3            |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | 307-055-2 | 97489-15-1  | 01-211948992<br>4-20                         | Acute toxicity - Oral, Category 4 (H302)<br>Skin irritation, Category 2 (H315)<br>Serious eye damage, Category 1 (H318)<br>Chronic aquatic toxicity, Category 3 (H412)                                       |       | 1-3            |
| sodium cumenesulphonate  | 239-854-6 | -           | 01-211948941<br>1-37                         | Eye irritation, Category 2 (H319)  |       | 1-3            |

**Specific concentration limits**

sodium hydroxide:

- Corrosive to metals, Category 1 (H290) >= 0.5%
- Serious eye damage, Category 1 (H318) >= 3% > Eye irritation, Category 2 (H319) >= 0.5%
- Skin corrosion, Category 1A (H314) >= 5% > Skin corrosion, Category 1B (H314) >= 2% > Skin irritation, Category 2 (H315) >= 0.5%

potassium hydroxide:

- Corrosive to metals, Category 1 (H290) >= 2%
- Serious eye damage, Category 1 (H318) >= 2% > Eye irritation, Category 2 (H319) >= 1%
- Skin corrosion, Category 1A (H314) >= 5% > Skin corrosion, Category 1B (H314) >= 2% > Skin irritation, Category 2 (H315) >= 0.5%

sulphonic acids, C14-17-sec-alkane, sodium salts:

- Serious eye damage, Category 1 (H318) >= 15% > Eye irritation, Category 2 (H319) >= 10%

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

ATE, if available, are listed in section 11.

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****General Information:**

If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

**Inhalation:**

Get medical attention or advice if you feel unwell.

**Skin contact:**

Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician.

**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. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

**Self-protection of first aider:**

Consider personal protective equipment as indicated in subsection 8.2.

**4.2 Most important symptoms and effects, both acute and delayed****Inhalation:**

No known effects or symptoms in normal use.

**Skin contact:**

Causes severe burns.

**Eye contact:**

Causes severe or permanent damage.

**Ingestion:**

Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

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

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

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

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

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

No special hazards known.

**5.3 Advice for firefighters**

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

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

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

**6.2 Environmental precautions**

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

**6.3 Methods and material for containment and cleaning up**

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

**6.4 Reference to other sections**

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

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Measures to prevent fire and explosions:**

No special precautions required.

**Measures 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 immediately all 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:

| Ingredient(s)       | UK - Long term value(s) | UK - Short term value(s) |
|---------------------|-------------------------|--------------------------|
| sodium hydroxide    |                         | 2 mg/m <sup>3</sup>      |
| potassium hydroxide |                         | 2 mg/m <sup>3</sup>      |

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**

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## 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 |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| sodium hydroxide   | -                          | -                             | -                         | -                            |
| tetrasodium ethylene diamine tetraacetate                              | -                          | -                             | -                         | 25                           |
| potassium hydroxide  | -                          | -                             | -                         | -                            |
| alkyl polyglucoside  | -                          | -                             | -                         | 0.75                         |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | -                          | -                             | -                         | 12.95                        |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | -                          | -                             | -                         | 7.1                          |
| sodium cumenesulphonate  | -                          | -                             | -                         | 1.14                         |

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) |
|--|-----------------------------|--|-----------------------------|---|
| sodium hydroxide   | 2 %                         | -  | -                           | -                                       |
| tetrasodium ethylene diamine tetraacetate                              | -                           | -  | -                           | -                                       |
| potassium hydroxide  | No data available           | -  | No data available           | -                                       |
| alkyl polyglucoside  | No data available           | -  | No data available           | 1.5                                     |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No data available           | -  | No data available           | 2158.33                                 |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | 2.8 mg/cm <sup>2</sup> skin | -  | 2.8 mg/cm <sup>2</sup> skin | 5                                       |
| sodium cumenesulphonate  | No data available           | -  | No data available           | 7.6                                     |

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) |
|--|-----------------------------|--|-----------------------------|---|
| sodium hydroxide   | 2 %                         | -  | -                           | -                                       |
| tetrasodium ethylene diamine tetraacetate                              | -                           | -  | -                           | -                                       |
| potassium hydroxide  | No data available           | -  | No data available           | -                                       |
| alkyl polyglucoside  | No data available           | -  | No data available           | 0.75                                    |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No data available           | -  | No data available           | 1295                                    |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | 2.8 mg/cm <sup>2</sup> skin | -  | 2.8 mg/cm <sup>2</sup> skin | 3.57                                    |
| sodium cumenesulphonate  | No data available           | -  | No data available           | 3.8                                     |

DNEL/DMEL 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 |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| sodium hydroxide   | -                          | -                             | 1                         | -                            |
| tetrasodium ethylene diamine tetraacetate                              | 3                          | 3                             | 1.5                       | 1.5                          |
| potassium hydroxide  | -                          | -                             | 1                         | -                            |
| alkyl polyglucoside  | -                          | -                             | -                         | 10.6                         |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | -                          | -                             | -                         | 152.22                       |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | -                          | -                             | -                         | 35                           |
| sodium cumenesulphonate  | -                          | -                             | -                         | 53.6                         |

DNEL/DMEL 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 |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| sodium hydroxide   | -                          | -                             | 1                         | -                            |
| tetrasodium ethylene diamine tetraacetate                              | 1.2                        | 1.2                           | 0.6                       | -                            |
| potassium hydroxide  | -                          | -                             | 1                         | -                            |
| alkyl polyglucoside  | -                          | -                             | -                         | 2.6                          |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | -                          | -                             | -                         | 45.04                        |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | -                          | -                             | -                         | 12.4                         |
| sodium cumenesulphonate  | -                          | -                             | -                         | 13.2                         |

## Environmental exposure

Environmental exposure - PNEC

| Ingredient(s)  | Surface water, fresh (mg/l) | Surface water, marine (mg/l) | Intermittent (mg/l) | Sewage treatment plant (mg/l) |
|--|-----------------------------|------------------------------|---------------------|-------------------------------|
| sodium hydroxide   | -                           | -                            | -                   | -                             |
| tetrasodium ethylene diamine tetraacetate                              | 2.2                         | 0.22                         | 1.2                 | 43                            |
| potassium hydroxide  | -                           | -                            | -                   | -                             |
| alkyl polyglucoside  | 0.098                       | 0.0098                       | 0.98                | -                             |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | 0.024                       | 0.0024                       | 0.0197              | 4                             |

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|  |      |       |      |     |
|--|------|-------|------|-----|
| sulphonic acids, C14-17-sec-alkane, sodium salts | 0.04 | 0.004 | 0.06 | 600 |
| sodium cumenesulphonate                          | 0.23 | 0.023 | 2.3  | 100 |

Environmental exposure - PNEC, continued

| Ingredient(s)  | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m <sup>3</sup> ) |
|--|------------------------------|--------------------------|--------------|--------------------------|
| sodium hydroxide   | -                            | -                        | -            | -                        |
| tetrasodium ethylene diamine tetraacetate                              | -                            | -                        | 0.72         | -                        |
| potassium hydroxide  | -                            | -                        | -            | -                        |
| alkyl polyglucoside  | 980                          | 98                       | 17.6         | -                        |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | 0.767                        | 0.0767                   | 1.21         | -                        |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | 9.4                          | 0.94                     | 9.4          | -                        |
| sodium cumenesulphonate  | 0.862                        | 0.086                    | 0.037        | -                        |

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

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

## REACH use scenarios considered for the undiluted product:

|  | SWED - Sector-specific worker exposure description | LCS | PROC    | Duration (min) | ERC  |
|--|--|-----|---------|----------------|------|
| Automatic application in a dedicated closed system | AISE_SWED_IS_1_1                                   | IS  | PROC 1  | 480            | ERC4 |
| Automatic transfer and dilution                    | AISE_SWED_IS_8b_1                                  | IS  | PROC 8b | 60             | ERC4 |

## Personal protective equipment

## Eye / face protection:

Safety glasses or goggles (EN 16321 / EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur. 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.

## Hand protection:

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

## Respiratory protection:

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

**Environmental exposure controls:** Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (% w/w): 5

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

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

## REACH use scenarios considered for the diluted product:

|   | SWED             | LCS | PROC   | Duration (min) | ERC   |
|---|------------------|-----|--------|----------------|-------|
| Automatic application in a dedicated system | AISE_SWED_IS_4_1 | IS  | PROC 4 | 480            | ERC8a |
| Foam spraying                               | AISE_SWED_IS_7_4 | IS  | PROC 7 | 480            | ERC4  |

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|                   |                  |  |  |  |  |
|-------------------|------------------|--|--|--|--|
| Spray application | AISE_SWED_IS_7_5 |  |  |  |  |
|-------------------|------------------|--|--|--|--|

**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 16321 / EN 166). Safety glasses or goggles (EN 16321 / EN 166) are always recommended for foam applications.

**Hand protection:**

Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact: Material: butyl rubber Penetration time:  $\geq 480$  min Material thickness:  $\geq 0.7$  mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen. Chemical-resistant protective gloves (EN 374) are always recommended for foam applications.

**Body protection:**

No special requirements under normal use conditions.

**Respiratory protection:**

Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided.

**Environmental exposure controls:**

No special requirements under normal use conditions.

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

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

**Method / remark**

**Physical state:** Liquid

**Colour:** Clear , Yellow

**Odour:** Product specific

**Odour threshold:** Not applicable

**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) |
|--|-----------------------------------|-----------------------|----------------------------|
| sodium hydroxide   | > 990                             | Method not given      |                            |
| tetrasodium ethylene diamine tetraacetate                              | No data available                 | Non-experimental data |                            |
| potassium hydroxide  | Not applicable to solids or gases | Method not given      |                            |
| alkyl polyglucoside  | No data available                 |                       |                            |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No data available                 |                       |                            |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | > 100                             | Method not given      |                            |
| sodium cumenesulphonate  | > 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:** Not applicable.

( UN Manual of Tests and Criteria, section 32, L.2 )

**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:** > 11 (neat)

ISO 4316

**Dilution pH:** > 11 (5 %)

ISO 4316

**Kinematic viscosity:** Not determined

Not relevant to classification of this product

**Solubility in / Miscibility with water:** Fully miscible

Substance data, solubility in water

| Ingredient(s)  | Value (g/l)       | Method           | Temperature (°C) |
|--|-------------------|------------------|------------------|
| sodium hydroxide   | 1000              | Method not given | 20               |
| tetrasodium ethylene diamine tetraacetate                              | 500               | Method not given | 20               |
| potassium hydroxide  | No data available |                  |                  |
| alkyl polyglucoside  | No data available |                  |                  |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | Soluble           | Method not given | 20               |

|  |         |                  |    |
|--|---------|------------------|----|
| sulphonic acids, C14-17-sec-alkane, sodium salts | 500     | Method not given | 25 |
| sodium cumenesulphonate                          | Soluble |                  |    |

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

**Vapour pressure:** Not determined

**Method / remark**  
See substance data

Substance data, vapour pressure

| Ingredient(s)  | Value (Pa)        | Method           | Temperature (°C) |
|--|-------------------|------------------|------------------|
| sodium hydroxide   | < 1330            | Method not given | 20               |
| tetrasodium ethylene diamine tetraacetate                              | 0.0000000002      | Read across      | 25               |
| potassium hydroxide  | Negligible        | Method not given |                  |
| alkyl polyglucoside  | No data available |                  |                  |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | < 0.001           | Method not given | 25               |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | 3000              | Method not given | 25               |
| sodium cumenesulphonate  | No data available |                  |                  |

**Relative density:** ≈ 1.23 (20 °C)  
**Relative vapour density:** No data available.  
**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.

**Oxidising properties:** Not oxidising.

**Corrosion to metals:** 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

May be corrosive to metals. Reacts with acids.

### 10.6 Hazardous decomposition products

None known under normal storage and use conditions.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Mixture data: .

#### Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

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

Substance data, where relevant and available, are listed below:.

#### Acute toxicity

Acute oral toxicity

| Ingredient(s)  | Endpoint         | Value (mg/kg)     | Species | Method            | Exposure time (h) | ATE Oral (mg/kg) |
|--|------------------|-------------------|---------|-------------------|-------------------|------------------|
| sodium hydroxide   |                  | No data available |         |                   |                   | Not established  |
| tetrasodium ethylene diamine tetraacetate                              | LD <sub>50</sub> | 1780              | Rat     | OECD 401 (EU B.1) |                   | 1780             |
| potassium hydroxide  | LD <sub>50</sub> | 333               | Rat     | OECD 425          |                   | 333              |
| alkyl polyglucoside  | LD <sub>50</sub> | > 2000 - 5000     | Rat     | OECD 401 (EU B.1) |                   | Not established  |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | LD <sub>50</sub> | > 2000            | Rat     | OECD 401 (EU B.1) |                   | Not established  |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | LD <sub>50</sub> | > 500-2000        | Rat     | OECD 401 (EU B.1) |                   | 500              |
| sodium cumenesulphonate  | LD <sub>50</sub> | > 7000            | Rat     | Method not given  |                   | Not established  |

Acute dermal toxicity

| Ingredient(s)  | Endpoint         | Value (mg/kg)     | Species | Method             | Exposure time (h) | ATE Dermal (mg/kg) |
|--|------------------|-------------------|---------|--------------------|-------------------|--------------------|
| sodium hydroxide   | LD <sub>50</sub> | 1350              | Rabbit  | Method not given   |                   | Not established    |
| tetrasodium ethylene diamine tetraacetate                              | LD <sub>50</sub> | > 5000            | Rabbit  | Method not given   |                   | Not established    |
| potassium hydroxide  |                  | No data available |         |                    |                   | Not established    |
| alkyl polyglucoside  | LD <sub>50</sub> | > 5000            | Rat     | OECD 402 (EU B.3)  |                   | Not established    |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | LD <sub>50</sub> | 6300              | Rabbit  | OECD 402 (EU B.3)  |                   | Not established    |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | LD <sub>50</sub> | > 2000            | Mouse   | Weight of evidence |                   | Not established    |
| sodium cumenesulphonate  | LD <sub>50</sub> | > 2000            | Rabbit  | Method not given   |                   | Not established    |

Acute inhalative toxicity

| Ingredient(s)  | Endpoint         | Value (mg/l)      | Species | Method            | Exposure time (h) |
|--|------------------|-------------------|---------|-------------------|-------------------|
| sodium hydroxide   |                  | No data available |         |                   |                   |
| tetrasodium ethylene diamine tetraacetate                              | LC <sub>50</sub> | ≥ 1-5 (dust)      | Rat     | OECD 403 (EU B.2) | 6                 |
| potassium hydroxide  |                  | No data available |         |                   |                   |
| alkyl polyglucoside  |                  | No data available |         |                   |                   |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | LC <sub>50</sub> | > 52 (mist)       | Rat     | OECD 403 (EU B.2) | 4                 |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       |                  | No data available |         |                   |                   |
| sodium cumenesulphonate  | LC <sub>50</sub> | > 770             | Rat     | Method not given  | 4                 |

Acute inhalative toxicity, continued

| Ingredient(s)  | ATE - inhalation, dust (mg/l) | ATE - inhalation, mist (mg/l) | ATE - inhalation, vapour (mg/l) | ATE - inhalation, gas (mg/l) |
|--|-------------------------------|-------------------------------|---------------------------------|------------------------------|
| sodium hydroxide   | Not established               | Not established               | Not established                 | Not established              |
| tetrasodium ethylene diamine tetraacetate                              | Not established               | 15                            | Not established                 | Not established              |
| potassium hydroxide  | Not established               | Not established               | Not established                 | Not established              |
| alkyl polyglucoside  | Not established               | Not established               | Not established                 | Not established              |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | Not established               | Not established               | Not established                 | Not established              |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | Not established               | Not established               | Not established                 | Not established              |
| sodium cumenesulphonate  | Not established               | Not established               | Not established                 | Not established              |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s)  | Result            | Species | Method                           | Exposure time |
|--|-------------------|---------|----------------------------------|---------------|
| sodium hydroxide   | Corrosive         | Rabbit  | Method not given                 |               |
| tetrasodium ethylene diamine tetraacetate                              | Not irritant      | Rabbit  | OECD 404 (EU B.4)                |               |
| potassium hydroxide  | Corrosive         | Rabbit  | Draize test                      |               |
| alkyl polyglucoside  | No data available |         |                                  |               |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | Irritant          | Rabbit  | OECD 404 (EU B.4)                |               |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | Irritant          | Rabbit  | OECD 404 (EU B.4)<br>Read across |               |
| sodium cumenesulphonate  | Mild irritant     | Rabbit  | OECD 404 (EU B.4)                |               |

Eye irritation and corrosivity

| Ingredient(s)                             | Result        | Species | Method            | Exposure time |
|---|---------------|---------|-------------------|---------------|
| sodium hydroxide                          | Corrosive     | Rabbit  | Method not given  |               |
| tetrasodium ethylene diamine tetraacetate | Severe damage |         | Method not given  |               |
| potassium hydroxide                       | Corrosive     | Rabbit  | Method not given  |               |
| alkyl polyglucoside                       | Severe damage | Rabbit  | OECD 405 (EU B.5) |               |



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|  |               |        |                   |  |
|--|---------------|--------|-------------------|--|
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | Severe damage | Rabbit | OECD 405 (EU B.5) |  |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | Severe damage |        | OECD 405 (EU B.5) |  |
| sodium cumenesulphonate  | Irritant      | Rabbit | OECD 405 (EU B.5) |  |

## Respiratory tract irritation and corrosivity

| Ingredient(s)  | Result            | Species | Method | Exposure time |
|--|-------------------|---------|--------|---------------|
| sodium hydroxide   | No data available |         |        |               |
| tetrasodium ethylene diamine tetraacetate                              | No data available |         |        |               |
| potassium hydroxide  | No data available |         |        |               |
| alkyl polyglucoside  | No data available |         |        |               |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No data available |         |        |               |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | No data available |         |        |               |
| sodium cumenesulphonate  | No data available |         |        |               |

## Sensitisation

## Sensitisation by skin contact

| Ingredient(s)  | Result          | Species    | Method                               | Exposure time (h) |
|--|-----------------|------------|--------------------------------------|-------------------|
| sodium hydroxide   | Not sensitising |            | Human repeated patch test            |                   |
| tetrasodium ethylene diamine tetraacetate                              | Not sensitising | Guinea pig | OECD 406 (EU B.6) / GPMT             |                   |
| potassium hydroxide  | Not sensitising | Guinea pig | Method not given                     |                   |
| alkyl polyglucoside  | Not sensitising | Guinea pig | OECD 406 (EU B.6) / Buehler test     |                   |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | Not sensitising | Guinea pig | OECD 406 (EU B.6) / GPMT             |                   |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | Not sensitising | Guinea pig | OECD 406 (EU B.6) / GPMT Read across |                   |
| sodium cumenesulphonate  | Not sensitising | Guinea pig | OECD 406 (EU B.6) / GPMT             |                   |

## Sensitisation by inhalation

| Ingredient(s)  | Result            | Species | Method | Exposure time |
|--|-------------------|---------|--------|---------------|
| sodium hydroxide   | No data available |         |        |               |
| tetrasodium ethylene diamine tetraacetate                              | No data available |         |        |               |
| potassium hydroxide  | No data available |         |        |               |
| alkyl polyglucoside  | No data available |         |        |               |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No data available |         |        |               |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | No data available |         |        |               |
| sodium cumenesulphonate  | No data available |         |        |               |

## CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

## Mutagenicity

| Ingredient(s)  | Result (in-vitro)                                   | Method (in-vitro)                           | Result (in-vivo)                                    | Method (in-vivo)                      |
|--|---|---|---|---------------------------------------|
| sodium hydroxide   | No evidence for mutagenicity, negative test results | DNA repair test on rat hepatocytes OECD 473 | No evidence for mutagenicity, negative test results | OECD 474 (EU B.12) OECD 475 (EU B.11) |
| tetrasodium ethylene diamine tetraacetate                              | No evidence for mutagenicity, negative test results | Method not given                            | No evidence of genotoxicity, negative test results  | Method not given                      |
| potassium hydroxide  | No evidence for mutagenicity, negative test results | Method not given                            | No data available                                   |                                       |
| alkyl polyglucoside  | No data available                                   |   | No data available                                   |                                       |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No evidence for mutagenicity, negative test results | Method not given                            | No evidence for mutagenicity, negative test results | Method not given                      |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | No evidence for mutagenicity, negative test results | Method not given                            | No evidence for mutagenicity, negative test results | Method not given                      |
| sodium cumenesulphonate  | No evidence for mutagenicity, negative test results | Method not given                            | No evidence for mutagenicity, negative test results | OECD 474 (EU B.12)                    |

## Carcinogenicity

| Ingredient(s)  | Effect   |
|--|--|
| sodium hydroxide   | No evidence for carcinogenicity, weight-of-evidence    |
| tetrasodium ethylene diamine tetraacetate                              | No evidence for carcinogenicity, weight-of-evidence    |
| potassium hydroxide  | No evidence for carcinogenicity, negative test results |
| alkyl polyglucoside  | No data available                                      |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No evidence for carcinogenicity, negative test results |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | No evidence for carcinogenicity, negative test results |
| sodium cumenesulphonate  | 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   |
|--|----------|---------------------|--------------------|---------|--------------------|---------------|--|
| sodium hydroxide   |          |                     | No data available  |         |                    |               | No evidence for developmental toxicity No evidence for reproductive toxicity |
| tetrasodium ethylene diamine tetraacetate                              |          |                     | No data available  |         |                    |               | No evidence for reproductive toxicity  |
| potassium hydroxide  |          |                     | No data available  |         |                    |               | No evidence for reproductive toxicity  |
| alkyl polyglucoside  |          |                     | No data available  |         |                    |               |  |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts |          |                     | No data available  |         |                    |               | No evidence for teratogenic effects  |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       |          |                     | No data available  |         |                    |               | No evidence for reproductive toxicity  |
| sodium cumenesulphonate  | NOAEL    | Teratogenic effects | > 3000             | Rat     | Non guideline test |               |  |

## Repeated dose toxicity

## Sub-acute or sub-chronic oral toxicity

| Ingredient(s)  | Endpoint | Value (mg/kg bw/d) | Species | Method             | Exposure time (days) | Specific effects and organs affected |
|--|----------|--------------------|---------|--------------------|----------------------|--------------------------------------|
| sodium hydroxide   |          | No data available  |         |                    |                      |                                      |
| tetrasodium ethylene diamine tetraacetate                              |          | No data available  |         |                    |                      |                                      |
| potassium hydroxide  |          | No data available  |         |                    |                      |                                      |
| alkyl polyglucoside  |          | No data available  |         |                    |                      |                                      |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts |          | No data available  |         |                    |                      |                                      |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | NOAEL    | 200                | Rat     | Method not given   |                      |                                      |
| sodium cumenesulphonate  | NOAEL    | 763 - 3534         |         | 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 |
|--|----------|--------------------|---------|------------------|----------------------|--------------------------------------|
| sodium hydroxide   |          | No data available  |         |                  |                      |                                      |
| tetrasodium ethylene diamine tetraacetate                              |          | No data available  |         |                  |                      |                                      |
| potassium hydroxide  |          | No data available  |         |                  |                      |                                      |
| alkyl polyglucoside  |          | No data available  |         |                  |                      |                                      |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts |          | No data available  |         |                  |                      |                                      |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       |          | No data available  |         |                  |                      |                                      |
| sodium cumenesulphonate  | NOAEL    | 440                | Mouse   | Method not given | 90                   |                                      |

## Sub-chronic inhalation toxicity

| Ingredient(s)  | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|--|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sodium hydroxide   |          | No data available  |         |        |                      |                                      |
| tetrasodium ethylene diamine tetraacetate                              |          | No data available  |         |        |                      |                                      |
| potassium hydroxide  |          | No data available  |         |        |                      |                                      |
| alkyl polyglucoside  |          | No data available  |         |        |                      |                                      |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts |          | No data available  |         |        |                      |                                      |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       |          | No data available  |         |        |                      |                                      |
| sodium cumenesulphonate  |          | No data available  |         |        |                      |                                      |

## Chronic toxicity

| Ingredient(s)  | Exposure route | Endpoint | Value (mg/kg bw/d) | Species | Method           | Exposure time | Specific effects and organs affected | Remark |
|--|----------------|----------|--------------------|---------|------------------|---------------|--------------------------------------|--------|
| sodium hydroxide   |                |          | No data available  |         |                  |               |                                      |        |
| tetrasodium ethylene diamine tetraacetate                              |                |          | No data available  |         |                  |               |                                      |        |
| potassium hydroxide  |                |          | No data available  |         |                  |               |                                      |        |
| alkyl polyglucoside  |                |          | No data available  |         |                  |               |                                      |        |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | Oral           | NOAEL    | 259                | Rat     | Method not given | 24 month(s)   |                                      |        |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | Oral           | NOAEL    | > 4000             | Rat     | Method not given |               |                                      |        |
| sodium cumenesulphonate  | Dermal         | NOAEL    | 727                | Mouse   | Method not given | 24 month(s)   |                                      |        |

## STOT-single exposure

| Ingredient(s)  | Affected organ(s) |
|--|-------------------|
| sodium hydroxide   | No data available |
| tetrasodium ethylene diamine tetraacetate                              | No data available |
| potassium hydroxide  | No data available |
| alkyl polyglucoside  | No data available |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No data available |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | No data available |
| sodium cumenesulphonate  | No data available |

## STOT-repeated exposure

| Ingredient(s)  | Affected organ(s) |
|--|-------------------|
| sodium hydroxide   | No data available |
| tetrasodium ethylene diamine tetraacetate                              | Respiratory tract |
| potassium hydroxide  | No data available |
| alkyl polyglucoside  | No data available |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No data available |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | No data available |
| sodium cumenesulphonate  | 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) |
|---|------------------|--------------|---------------------|------------------------|-------------------|
| sodium hydroxide                          | LC <sub>50</sub> | 35           | Various species     | Method not given       | 96                |
| tetrasodium ethylene diamine tetraacetate | LC <sub>50</sub> | > 100        | Lepomis macrochirus | OPP 72-1, static (EPA) | 96                |
| potassium hydroxide                       | LC <sub>50</sub> | 80           | Various species     | Weight of evidence     | 24                |
| alkyl polyglucoside                       | LC <sub>50</sub> | > 310        | Oncorhynchus        | Method not given       | 96                |

|  |                  |        |                          |                    |    |
|--|------------------|--------|--------------------------|--------------------|----|
|  |                  |        | mykiss                   |                    |    |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | LC <sub>50</sub> | 4.2    | <i>Brachydanio rerio</i> | OECD 203 (EU C.1)  | 96 |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | LC <sub>50</sub> | 1 - 10 | <i>Brachydanio rerio</i> | OECD 203, static   | 96 |
| sodium cumenesulphonate  | LC <sub>50</sub> | > 1000 | <i>Fish</i>              | EPA-OPPTS 850.1075 | 96 |

## Aquatic short-term toxicity - crustacea

| Ingredient(s)  | Endpoint         | Value (mg/l) | Species                     | Method             | Exposure time (h) |
|--|------------------|--------------|-----------------------------|--------------------|-------------------|
| sodium hydroxide   | EC <sub>50</sub> | 40.4         | <i>Ceriodaphnia</i> sp.     | Method not given   | 48                |
| tetrasodium ethylene diamine tetraacetate                              | EC <sub>50</sub> | 140          | <i>Daphnia magna</i> Straus | DIN 38412, Part 11 | 48                |
| potassium hydroxide  | EC <sub>50</sub> | 30 - 1000    | <i>Daphnia magna</i> Straus | Weight of evidence |                   |
| alkyl polyglucoside  | EC <sub>50</sub> | > 100        | <i>Daphnia magna</i> Straus |                    | 48                |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | EC <sub>50</sub> | 4.53         | <i>Ceriodaphnia</i> sp.     | OECD 202 (EU C.2)  | 48                |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | EC <sub>50</sub> | 9.81         | <i>Daphnia magna</i> Straus | OECD 202 (EU C.2)  | 48                |
| sodium cumenesulphonate  | EC <sub>50</sub> | > 1000       | <i>Daphnia</i>              | EPA-OPPTS 850.1010 | 48                |

## Aquatic short-term toxicity - algae

| Ingredient(s)  | Endpoint                       | Value (mg/l)      | Species                                | Method                     | Exposure time (h) |
|--|--------------------------------|-------------------|--|----------------------------|-------------------|
| sodium hydroxide   | EC <sub>50</sub>               | 22                | <i>Photobacterium phosphoreum</i>      | Method not given           | 0.25              |
| tetrasodium ethylene diamine tetraacetate                              | EC <sub>50</sub>               | > 100             | <i>Scenedesmus obliquus</i>            | 88/302/EEC, Part C, static | 72                |
| potassium hydroxide  |                                | No data available |  |                            |                   |
| alkyl polyglucoside  | EC <sub>50</sub>               | > 100             | <i>Selenastrum capricornutum</i>       |                            | 72                |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | EC <sub>50</sub>               | 5.2               |  | OECD 201 (EU C.3)          | 72                |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | EC <sub>50</sub>               | > 61              | <i>Pseudokirchneriella subcapitata</i> | OECD 201 (EU C.3)          | 72                |
| sodium cumenesulphonate  | E <sub>r</sub> C <sub>50</sub> | 310               | Not specified                          |                            | 72                |

## Aquatic short-term toxicity - marine species

| Ingredient(s)  | Endpoint | Value (mg/l)      | Species | Method | Exposure time (days) |
|--|----------|-------------------|---------|--------|----------------------|
| sodium hydroxide   |          | No data available |         |        |                      |
| tetrasodium ethylene diamine tetraacetate                              |          | No data available |         |        |                      |
| potassium hydroxide  |          | No data available |         |        |                      |
| alkyl polyglucoside  |          | No data available |         |        |                      |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts |          | No data available |         |        |                      |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       |          | No data available |         |        |                      |
| sodium cumenesulphonate  |          | No data available |         |        |                      |

## Impact on sewage plants - toxicity to bacteria

| Ingredient(s)  | Endpoint                       | Value (mg/l)      | Inoculum                          | Method             | Exposure time |
|--|--------------------------------|-------------------|-----------------------------------|--------------------|---------------|
| sodium hydroxide   |                                | No data available |                                   |                    |               |
| tetrasodium ethylene diamine tetraacetate                              | EC <sub>20</sub>               | > 500             | Activated sludge                  | OECD 209           | 0.5 hour(s)   |
| potassium hydroxide  | EC <sub>50</sub>               | 22                | <i>Photobacterium phosphoreum</i> | Method not given   | 15 minute(s)  |
| alkyl polyglucoside  |                                | No data available |                                   |                    |               |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | EC <sub>50</sub>               | 230               |                                   | OECD 209           |               |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | NOEC                           | 600               | <i>Pseudomonas putida</i>         | DIN 38412 / Part 8 | 16 hour(s)    |
| sodium cumenesulphonate  | E <sub>r</sub> C <sub>50</sub> | > 1000            | Bacteria                          | 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 |
|--|----------|-------------------|----------------------------|----------|---------------|------------------|
| sodium hydroxide   |          | No data available |                            |          |               |                  |
| tetrasodium ethylene diamine tetraacetate                              | NOEC     | > 25.7            | <i>Brachydanio rerio</i>   | OECD 210 | 35 day(s)     |                  |
| potassium hydroxide  |          | No data available |                            |          |               |                  |
| alkyl polyglucoside  |          | No data available |                            |          |               |                  |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts |          | No data available |                            |          |               |                  |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | NOEC     | 0.85              | <i>Oncorhynchus mykiss</i> | OECD 204 | 28 day(s)     |                  |
| sodium cumenesulphonate  |          | No data available |                            |          |               |                  |

Aquatic long-term toxicity - crustacea

| Ingredient(s)  | Endpoint | Value (mg/l)      | Species              | Method   | Exposure time | Effects observed |
|--|----------|-------------------|----------------------|----------|---------------|------------------|
| sodium hydroxide   |          | No data available |                      |          |               |                  |
| tetrasodium ethylene diamine tetraacetate                              | NOEC     | 25                | <i>Daphnia magna</i> | OECD 211 | 21 day(s)     |                  |
| potassium hydroxide  |          | No data available |                      |          |               |                  |
| alkyl polyglucoside  |          | No data available |                      |          |               |                  |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts |          | No data available |                      |          |               |                  |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | NOEC     | 0.36              | <i>Daphnia magna</i> | OECD 202 | 22 day(s)     |                  |
| sodium cumenesulphonate  |          | No data available |                      |          |               |                  |

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

| Ingredient(s)  | Endpoint | Value (mg/kg dw sediment) | Species | Method | Exposure time (days) | Effects observed |
|--|----------|---------------------------|---------|--------|----------------------|------------------|
| sodium hydroxide   |          | No data available         |         |        |                      |                  |
| tetrasodium ethylene diamine tetraacetate                              |          | No data available         |         |        |                      |                  |
| potassium hydroxide  |          | No data available         |         |        |                      |                  |
| alkyl polyglucoside  |          | No data available         |         |        |                      |                  |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts |          | No data available         |         |        |                      |                  |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       |          | No data available         |         |        |                      |                  |
| sodium cumenesulphonate  |          | No data available         |         |        |                      |                  |

**Terrestrial toxicity**

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

| Ingredient(s)                                    | Endpoint         | Value (mg/kg dw soil) | Species               | Method   | Exposure time (days) | Effects observed |
|--|------------------|-----------------------|-----------------------|----------|----------------------|------------------|
| sodium hydroxide                                 |                  | No data available     |                       |          |                      |                  |
| tetrasodium ethylene diamine tetraacetate        | LD <sub>50</sub> | 156                   | <i>Eisenia fetida</i> | OECD 207 | 14                   |                  |
| potassium hydroxide                              |                  | No data available     |                       |          |                      |                  |
| sulphonic acids, C14-17-sec-alkane, sodium salts | NOEC             | 470                   | <i>Eisenia fetida</i> | OECD 222 | 56                   |                  |
| sodium cumenesulphonate                          |                  | No data available     |                       |          |                      |                  |

Terrestrial toxicity - plants, if available:

| Ingredient(s)    | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium hydroxide |          | No data available     |         |        |                      |                  |

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|   |      |                   |  |  |    |  |
|---|------|-------------------|--|--|----|--|
| tetrasodium ethylene diamine tetraacetate | NOEC | 0.25 - 1.25       |  |  | 21 |  |
| potassium hydroxide                       |      | No data available |  |  |    |  |
| sodium cumenesulphonate                   |      | No data available |  |  |    |  |

Terrestrial toxicity - birds, if available:

| Ingredient(s)           | Endpoint | Value             | Species | Method | Exposure time (days) | Effects observed |
|-------------------------|----------|-------------------|---------|--------|----------------------|------------------|
| sodium hydroxide        |          | No data available |         |        |                      |                  |
| sodium cumenesulphonate |          | No data available |         |        |                      |                  |

Terrestrial toxicity - beneficial insects, if available:

| Ingredient(s)           | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|-------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium hydroxide        |          | No data available     |         |        |                      |                  |
| potassium hydroxide     |          | No data available     |         |        |                      |                  |
| sodium cumenesulphonate |          | No data available     |         |        |                      |                  |

Terrestrial toxicity - soil bacteria, if available:

| Ingredient(s)           | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|-------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium hydroxide        |          | No data available     |         |        |                      |                  |
| potassium hydroxide     |          | No data available     |         |        |                      |                  |
| sodium cumenesulphonate |          | No data available     |         |        |                      |                  |

## 12.2 Persistence and degradability

## Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

| Ingredient(s)                             | Half-life time    | Method           | Evaluation              | Remark |
|---|-------------------|------------------|-------------------------|--------|
| sodium hydroxide                          | 13 second(s)      | Method not given | Rapidly photodegradable |        |
| tetrasodium ethylene diamine tetraacetate | No data available |                  |                         |        |
| potassium hydroxide                       | No data available |                  |                         |        |
| sodium cumenesulphonate                   | No data available |                  |                         |        |

Abiotic degradation - hydrolysis, if available:

| Ingredient(s)                             | Half-life time in fresh water | Method | Evaluation | Remark |
|---|-------------------------------|--------|------------|--------|
| sodium hydroxide                          | No data available             |        |            |        |
| tetrasodium ethylene diamine tetraacetate | No data available             |        |            |        |
| potassium hydroxide                       | No data available             |        |            |        |
| sodium cumenesulphonate                   | No data available             |        |            |        |

Abiotic degradation - other processes, if available:

| Ingredient(s)                             | Type | Half-life time    | Method | Evaluation | Remark |
|---|------|-------------------|--------|------------|--------|
| sodium hydroxide                          |      | No data available |        |            |        |
| tetrasodium ethylene diamine tetraacetate |      | No data available |        |            |        |
| potassium hydroxide                       |      | No data available |        |            |        |
| sodium cumenesulphonate                   |      | No data available |        |            |        |

## Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s)                             | Inoculum          | Analytical method | DT <sub>50</sub>  | Method             | Evaluation                           |
|---|-------------------|-------------------|-------------------|--------------------|--------------------------------------|
| sodium hydroxide                          |                   |                   |                   |                    | Not applicable (inorganic substance) |
| tetrasodium ethylene diamine tetraacetate |                   |                   |                   | Weight of evidence | Not readily biodegradable.           |
| potassium hydroxide                       |                   |                   |                   |                    | Not applicable (inorganic substance) |
| alkyl polyglucoside                       | Activated sludge, | Oxygen depletion  | 90 % in 28 day(s) | OECD 301D          | Readily biodegradable                |

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|  |                          |                            |                     |           |                       |
|--|--------------------------|----------------------------|---------------------|-----------|-----------------------|
|  | aerobe                   |                            |                     |           |                       |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | Activated sludge, aerobe | CO <sub>2</sub> production | > 80 % in 28 day(s) | OECD 301B | Readily biodegradable |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | Activated sludge, aerobe | DOC reduction              | 89 % in 28 day(s)   | OECD 301E | Readily biodegradable |
| sodium cumenesulphonate  | Activated sludge, aerobe | CO <sub>2</sub> production | 100 % in 28 day(s)  | OECD 301B | Readily biodegradable |

Ready biodegradability - anaerobic and marine conditions, if available:

| Ingredient(s)                             | Medium & Type | Analytical method | DT <sub>50</sub> | Method | Evaluation        |
|---|---------------|-------------------|------------------|--------|-------------------|
| sodium hydroxide                          |               |                   |                  |        | No data available |
| tetrasodium ethylene diamine tetraacetate |               |                   |                  |        | No data available |
| sodium cumenesulphonate                   |               |                   |                  |        | No data available |

Degradation in relevant environmental compartments, if available:

| Ingredient(s)                             | Medium & Type | Analytical method | DT <sub>50</sub> | Method | Evaluation        |
|---|---------------|-------------------|------------------|--------|-------------------|
| sodium hydroxide                          |               |                   |                  |        | No data available |
| tetrasodium ethylene diamine tetraacetate |               |                   |                  |        | No data available |
| potassium hydroxide                       |               |                   |                  |        | No data available |
| sodium cumenesulphonate                   |               |                   |                  |        | No data available |

### 12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log K<sub>ow</sub>)

| Ingredient(s)  | Value             | Method             | Evaluation                           | Remark |
|--|-------------------|--------------------|--------------------------------------|--------|
| sodium hydroxide   | No data available |                    | Not relevant, does not bioaccumulate |        |
| tetrasodium ethylene diamine tetraacetate                              | -3.86             | Method not given   | No bioaccumulation expected          |        |
| potassium hydroxide  | No data available |                    | Not relevant, does not bioaccumulate |        |
| alkyl polyglucoside  | 1.1               |                    |                                      |        |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | -1.3              | (EC) 440/2008, A.8 | No bioaccumulation expected          |        |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | No data available |                    | No bioaccumulation expected          |        |
| sodium cumenesulphonate  | -1.5              | Method not given   | Low potential for bioaccumulation    |        |

Bioconcentration factor (BCF)

| Ingredient(s)  | Value             | Species                    | Method   | Evaluation                        | Remark |
|--|-------------------|----------------------------|----------|-----------------------------------|--------|
| sodium hydroxide   | No data available |                            |          |                                   |        |
| tetrasodium ethylene diamine tetraacetate                              | 1.8               | <i>Lepomis macrochirus</i> | OECD 305 | Low potential for bioaccumulation |        |
| potassium hydroxide  | No data available |                            |          |                                   |        |
| alkyl polyglucoside  | No data available |                            |          | Low potential for bioaccumulation |        |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No data available |                            |          |                                   |        |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | No data available |                            |          |                                   |        |
| sodium cumenesulphonate  | 3.16              |                            | QSAR     | Low potential for bioaccumulation |        |

### 12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

| Ingredient(s)  | Adsorption coefficient Log K <sub>oc</sub> | Desorption coefficient Log K <sub>oc</sub> (des) | Method | Soil/sediment type | Evaluation                                     |
|--|--|--|--------|--------------------|--|
| sodium hydroxide   | No data available                          |  |        |                    | Mobile in soil                                 |
| tetrasodium ethylene diamine tetraacetate                              | No data available                          |  |        |                    | Adsorption to solid soil phase is not expected |
| potassium hydroxide  | No data available                          |  |        |                    | Low potential for adsorption to soil           |
| alkyl polyglucoside  | No data available                          |  |        |                    |  |
| sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts | No data available                          |  |        |                    | Low potential for adsorption to soil           |
| sulphonic acids, C14-17-sec-alkane, sodium salts                       | No data available                          |  |        |                    |  |
| sodium cumenesulphonate  | 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.

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**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 15\* - alkalines.

**Empty packaging****Recommendation:**

Dispose of observing national or local regulations.

**Suitable cleaning agents:**

Water, if necessary with cleaning agent.

**SECTION 14: Transport information****Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)****14.1 UN number or ID number:** 1824**14.2 UN proper shipping name:**

Sodium hydroxide solution

**14.3 Transport hazard class(es):**

Transport hazard class (and subsidiary risks): 8

**14.4 Packing group:** II**14.5 Environmental hazards:**

Environmentally hazardous: No

Marine pollutant: No

**14.6 Special precautions for user:** None known.**14.7 Maritime transport in bulk according to IMO instruments:** The product is not transported in bulk tankers.**Other relevant information:****ADR**

Classification code: C5

Tunnel restriction code: (E)

Hazard identification number: 80

**IMO/IMDG**

EmS: F-A, S-B

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

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

EDTA and salts thereof

5 - 15 %



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anionic surfactants, non-ionic surfactants, NTA (nitrilotriacetic acid) and salts thereof < 5 %

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:** MSDS1503

**Version:** 13.0

**Revision:** 2024-08-07

**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):, 2, 6, 7, 8, 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.

**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
- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H332 - Harmful if inhaled.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H412 - Harmful to aquatic life with long lasting effects.

**End of Safety Data Sheet**