

Safety Data Sheet

According to Regulation (EC) No 1907/2006

Persil Professional Concentrated Performance Biological Liquid

Revision: 2015-11-01 **Version:** 10.0

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

1.1 Product identifier

Trade name: Persil Professional Concentrated Performance Biological Liquid

Persil is a registered trade mark and is used under licence of Unilever

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

Identified uses:

For professional use only.

AISE-P102 - Laundry detergent. Semi-automatic process

AISE-P103 - Laundry detergent. Manual 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

Unilever UK Ltd., Freepost ADM1000, London SW1A 2XX

Tel: 0800 776647

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.

Eye Irrit. 2 (H319)

The product does not meet the criteria for classification in accordance with Directive 1999/45/EC and corresponding national legislation

2.2 Label elements



Signal word: Warning.

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

Hazard statements:

H319 - Causes 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.



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 |
|---|-----------|------------|-------------------|--|--|-------|----------------|
| alkyl alcohol ethoxylate | 500-195-7 | 68131-39-5 | No data available | Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411) | Xn;R22 Xi;R41 N;R50 | | 3-10 |
| sodium dodecylbenzenesulphonate | 246-680-4 | 25155-30-0 | 01-2119489428-22 | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) | Xn;R22 Xi;R38-41 | | 3-10 |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | 221-416-0 | 3088-31-1 | No data available | Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412) | Xi;R38-41 | | 1-3 |
| 1,2-benzisothiazol-3(2H)-one | 220-120-9 | 2634-33-5 | No data available | Acute Tox. 2 (H330) Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) | T;R23 Xn;R22 Xi;R38-41-43 N;R50 | | 0.01-0.1 |

^{*} Polymer.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Get medical attention or advice if you feel unwell.

Skin contact: Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice

or attention.

Eye contact: Immediately rinse eyes cautiously with lukewarm water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing. If irritation occurs and persists, get medical attention.

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:No known effects or symptoms in normal use.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

^[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.

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

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

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

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

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.

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 adviced 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 |
|---|----------------------------|-------------------------------|---------------------------|------------------------------|
| alkyl alcohol ethoxylate | No data available | No data available | No data available | No data available |
| sodium dodecylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | No data available | No data available | No data available |
| 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) |
|---|----------------------------|--|---------------------------|---|
| alkyl alcohol ethoxylate | No data available | No data available | No data available | No data available |
| sodium dodecylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | No data available | No data available | No data available |
| 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) |
|---|----------------------------|--|---------------------------|---|
| alkyl alcohol ethoxylate | No data available | No data available | No data available | No data available |
| sodium dodecylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | No data available | No data available | No data available |
| 1,2-benzisothiazol-3(2H)-one | No data available | No data available | No data available | No data available |

DNEL inhalatory exposure - Worker (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|---|----------------------------|-------------------------------|---------------------------|------------------------------|
| alkyl alcohol ethoxylate | No data available | No data available | No data available | No data available |
| sodium dodecylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | No data available | No data available | No data available |
| 1,2-benzisothiazol-3(2H)-one | No data available | No data available | No data available | No data available |

DNEL inhalatory exposure - Consumer (mg/m³)

| Ingredient(s) | Short term - Local | Short term - Systemic | Long term - Local | Long term - Systemic |
|---|--------------------|-----------------------|-------------------|----------------------|
| | effects | effects | effects | effects |
| alkyl alcohol ethoxylate | No data available | No data available | No data available | No data available |
| sodium dodecylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | No data available | No data available | No data available |
| 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) |
|---|-----------------------------|------------------------------|---------------------|-------------------------------|
| alkyl alcohol ethoxylate | No data available | No data available | No data available | No data available |
| sodium dodecylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | No data available | No data available | No data available |
| 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/m³) |
|---|------------------------------|-----------------------------|-------------------|-------------------|
| alkyl alcohol ethoxylate | No data available | No data available | No data available | No data available |
| sodium dodecylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | No data available | No data available | No data available |
| 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 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 <u>undiluted</u> 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: Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.

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 (%): 2

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: Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.

Body protection:No special requirements under normal use conditions.
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: Green
Odour: Slightly perfumed
Odour threshold: Not applicable

pH: ≈ 8 (neat)

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

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

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|---|-------------------|--------|----------------------------|
| alkyl alcohol ethoxylate | No data available | | |
| sodium dodecylbenzenesulphonate | No data available | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | |
| 1,2-benzisothiazol-3(2H)-one | No data available | | |

Method / remark

Flash point (°C): Not applicable.
Sustained combustion: Not applicable.
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) |
|---|-------------------|--------|---------------------|
| alkyl alcohol ethoxylate | No data available | | |
| sodium dodecylbenzenesulphonate | No data available | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | |
| 1,2-benzisothiazol-3(2H)-one | No data available | | |

Method / remark

Vapour density: Not determined Relative density: 1.02 g/cm³ (20 °C)

Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|---|-------------------|------------------|---------------------|
| alkyl alcohol ethoxylate | 100 | Method not given | |
| sodium dodecylbenzenesulphonate | No data available | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | |
| 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 applicable.

Viscosity: ≈ 450 mPa.s (20 °C) 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

11.1 Information on toxicological effects

Mixture data:

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

Skin irritation and corrosivity

Result: Not corrosive or irritant Eye irritation and corrosivity

Method: Weight of evidence

Result: Eye irritant 2 **Method:** Weight of evidence 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) |
|---|----------|----------------------|---------|------------------|-------------------|
| alkyl alcohol ethoxylate | LD 50 | > 300 - 2000 | | Method not given | |
| sodium dodecylbenzenesulphonate | | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | No data available | | | |
| 1,2-benzisothiazol-3(2H)-one | | No data available | | | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|---|----------|----------------------|---------|------------------|-------------------|
| alkyl alcohol ethoxylate | LD 50 | > 2000 | | Method not given | |
| sodium dodecylbenzenesulphonate | | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | No data available | | | |
| 1,2-benzisothiazol-3(2H)-one | | No data available | | | |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|---|----------|----------------------|---------|--------|-------------------|
| alkyl alcohol ethoxylate | | No data available | | | |
| sodium dodecylbenzenesulphonate | | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | 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 |
|---|-------------------|---------|--------|---------------|
| alkyl alcohol ethoxylate | No data available | | | |
| sodium dodecylbenzenesulphonate | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | | |
| 1,2-benzisothiazol-3(2H)-one | No data available | | | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|-------------------|---------|--------|---------------|
| alkyl alcohol ethoxylate | No data available | | | |
| sodium dodecylbenzenesulphonate | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | | |
| 1,2-benzisothiazol-3(2H)-one | No data available | | | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|-------------------|---------|--------|---------------|
| alkyl alcohol ethoxylate | No data available | | | |
| sodium dodecylbenzenesulphonate | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | 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) |
|---|-------------------|---------|--------|-------------------|
| alkyl alcohol ethoxylate | No data available | | | |
| sodium dodecylbenzenesulphonate | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | | |
| 1,2-benzisothiazol-3(2H)-one | No data available | | | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|-------------------|---------|--------|---------------|
| alkyl alcohol ethoxylate | No data available | | | |
| sodium dodecylbenzenesulphonate | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | | |
| 1,2-benzisothiazol-3(2H)-one | 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) |
|---|---|----------------------|-------------------|---------------------|
| | No evidence for mutagenicity, negative test results | | No data available | |
| sodium dodecylbenzenesulphonate | No data available | | No data available | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | No data available | |
| 1,2-benzisothiazol-3(2H)-one | No data available | | No data available | |

Carcinogenicity

| Ingredient(s) | Effect |
|---|--|
| alkyl alcohol ethoxylate | No evidence for carcinogenicity, negative test results |
| sodium dodecylbenzenesulphonate | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available |
| 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 |
|--|----------|-----------------|-----------------------|---------|--------|---------------|------------------------------------|
| alkyl alcohol ethoxylate | | | No data available | | | | Not toxic for reproduction |
| sodium dodecylbenzenesulpho nate | | | No data available | | | | |
| sodium 2-(2-dodecyloxyethoxy) ethyl sulphate | | | No data available | | | | |
| 1,2-benzisothiazol-3(2H)-one | | | No data available | | | | |

Repeated dose toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|---|----------|-----------------------|---------|--------|----------------------|--------------------------------------|
| alkyl alcohol ethoxylate | | No data available | | | | |
| sodium dodecylbenzenesulphonate | | No data available | | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | No data available | | | | |
| 1,2-benzisothiazol-3(2H)-one | | No data | | | | |

Sub-chronic dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|---|----------|-----------------------|---------|--------|----------------------|--------------------------------------|
| alkyl alcohol ethoxylate | | No data | | | | |
| | | available | | | | |
| sodium dodecylbenzenesulphonate | | No data | | | | |
| | | available | | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | 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 |
|---|----------|-----------------------|---------|--------|----------------------|--------------------------------------|
| alkyl alcohol ethoxylate | | No data available | | | | |
| sodium dodecylbenzenesulphonate | | No data available | | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | 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 |
|--|----------------|----------|-----------------------|---------|--------|---------------|---|--------|
| alkyl alcohol ethoxylate | | | No data available | | | | | |
| sodium dodecylbenzenesulpho nate | | | No data available | | | | | |
| sodium 2-(2-dodecyloxyethoxy) ethyl sulphate | | | No data available | | | | | |
| 1,2-benzisothiazol-3(2H)-one | | | No data available | | | | | |

STOT-single exposure

| or or unigro expectate | |
|---|-------------------|
| Ingredient(s) | Affected organ(s) |
| alkyl alcohol ethoxylate | No data available |
| sodium dodecylbenzenesulphonate | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available |
| 1,2-benzisothiazol-3(2H)-one | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|---|-------------------|
| alkyl alcohol ethoxylate | No data available |
| sodium dodecylbenzenesulphonate | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | 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) |
|---|----------|----------------------|---------|------------------|-------------------|
| alkyl alcohol ethoxylate | LC 50 | 1 - 10 | | Method not given | |
| sodium dodecylbenzenesulphonate | | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | No data available | | | |
| 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) |
|---------------------------------|----------|----------------------|---------|------------------|-------------------|
| alkyl alcohol ethoxylate | EC 50 | 1 - 10 | | Method not given | |
| sodium dodecylbenzenesulphonate | | No data available | | | |

| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | |
|---|----------------------|--|--|
| 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) |
|---|----------|----------------------|---------|------------------|-------------------|
| alkyl alcohol ethoxylate | LC 50 | 1 - 10 | | Method not given | |
| sodium dodecylbenzenesulphonate | | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | No data available | | | |
| 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) |
|---|----------|----------------------|---------|--------|----------------------|
| alkyl alcohol ethoxylate | | No data available | | | |
| sodium dodecylbenzenesulphonate | | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | 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 |
|---|----------|----------------------|----------|------------------|---------------|
| alkyl alcohol ethoxylate | EC 50 | > 100 | | Method not given | |
| sodium dodecylbenzenesulphonate | | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | No data available | | | |
| 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 |
|---|----------|----------------------|---------|--------|---------------|------------------|
| alkyl alcohol ethoxylate | | No data available | | | | |
| sodium dodecylbenzenesulphonate | | No data available | | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | No data available | | | | |
| 1,2-benzisothiazol-3(2H)-one | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|---|----------|----------------------|---------|--------|---------------|------------------|
| alkyl alcohol ethoxylate | | No data available | | | | |
| sodium dodecylbenzenesulphonate | | No data available | | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | No data available | | | | |
| 1,2-benzisothiazol-3(2H)-one | | No data available | | | | |

| Ingredient(s) | Endpoint | Value (mg/kg dw | Species | Method | Exposure time (days) | Effects observed |
|---|----------|--------------------|---------|--------|----------------------|------------------|
| | | sediment) | | | unic (days) | |
| alkyl alcohol ethoxylate | | No data | | | | |
| | | available | | | | |
| sodium dodecylbenzenesulphonate | | No data | | | | |
| | | available | | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | No data | | | | |
| | | available | | | | |
| 1,2-benzisothiazol-3(2H)-one | | No data | | | | |
| | | available | | | | |

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

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT 50 | Method | Evaluation |
|---|----------|-------------------|-------|--------|-----------------------|
| alkyl alcohol ethoxylate | | | | | Readily biodegradable |
| sodium dodecylbenzenesulphonate | | | | | No data available |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | | | | | No data available |
| 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

Partition coefficient n-octanol/water (log Kow)

| Ingredient(s) | Value | Method | Evaluation | Remark |
|---|-------------------|--------|------------|--------|
| alkyl alcohol ethoxylate | No data available | | | |
| sodium dodecylbenzenesulphonate | No data available | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | No data available | | | |
| 1,2-benzisothiazol-3(2H)-one | No data available | | | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|--|-------------------|---------|--------|------------|--------|
| alkyl alcohol ethoxylate | No data available | | | | |
| sodium dodecylbenzenesulpho nate | No data available | | | | |
| sodium 2-(2-dodecyloxyethoxy) ethyl sulphate | 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 |
|---|--------------------------------------|---|--------|-----------------------|--|
| alkyl alcohol ethoxylate | No data available | | | | Potential for mobility in soil, soluble in water |
| sodium dodecylbenzenesulphonate | No data available | | | | |
| sodium 2-(2-dodecyloxyethoxy)ethyl sulphate | 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

The concentrated contents or contaminated packaging should be disposed of by a certified handler

products: or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging

material is suitable for energy recovery or recycling in line with local legislation.

European Waste Catalogue: 20 01 29* - detergents containing dangerous substances.

Empty packaging

Recommendation: Dispose of observing national or local regulations.

Suitable cleaning agents: Water, if necessary with cleaning agent.

SECTION 14: Transport information

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, non-ionic surfactants

5 - 15% < 5%

soan

perfumes, enzymes, optical brighteners, Benzisothiazolinone, Butylphenyl Methylpropional,

Citronellol

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

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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):, 15

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.
- · H330 Fatal if inhaled.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- R22 Harmful if swallowed.
- R23 Toxic by inhalation.
- 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