

Sunlight Professional Washing Up Liquid Lemon

Revision: 2014-10-08

Version: 10.0

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

1.1 Product identifier

Trade name: Sunlight Professional Washing Up Liquid Lemon
Sunlight 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-P201 - Dishwash product. 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

Hazard statements:

H319 - Causes serious eye irritation.

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

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3.2 Mixtures

| Ingredient(s) | EC number | CAS number | REACH number | Classification | Classification (1999/45/EC) | Notes | Weight percent |
|-------------------------------|-----------|------------|-------------------|---|------------------------------------|-------|----------------|
| sodium alkylbenzenesulphonate | 290-656-6 | 90194-45-9 | [1] | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) | Xn;R22 Xi;R38-41 | | 3-10 |
| sodium alkylethersulphate | Polymer* | 68585-34-2 | 01-2119488639-16 | Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412) | Xi;R38-41 | | 3-10 |
| urea | 200-315-5 | 57-13-6 | 01-2119463277-33 | | - | | 1-3 |
| bronopol (INN) | 200-143-0 | 52-51-7 | No data available | Acute Tox. 4 (H302) Acute Tox. 4 (H312) STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) | Xn;R21/22 Xi;R37/38-41 N;R50 | | 0.01-0.1 |

* Polymer.

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

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

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

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

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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water. 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.

Ingestion:

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

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

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7.1 Precautions for safe handling**Measures to prevent fire and explosions:**

No special precautions required.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Sealed Air. Wash hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Use personal protective equipment as required. Use only with adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Keep only in original container. Store in a closed container.

For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Workplace exposure limits**

Air limit values, if available:

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values**Human exposure**

DNEL oral exposure - Consumer (mg/kg bw)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|-------------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| sodium alkylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium alkylethersulphate | No data available | No data available | No data available | No data available |
| urea | No data available | 42 | No data available | 42 |
| bronopol (INN) | 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) |
|-------------------------------|----------------------------|--|---------------------------|---|
| sodium alkylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium alkylethersulphate | No data available | No data available | No data available | No data available |
| urea | No data available | 580 | No data available | 580 |
| bronopol (INN) | 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) |
|-------------------------------|----------------------------|--|---------------------------|---|
| sodium alkylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium alkylethersulphate | No data available | No data available | No data available | No data available |
| urea | No data available | 580 | No data available | 580 |
| bronopol (INN) | 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 |
|-------------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| sodium alkylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium alkylethersulphate | No data available | No data available | No data available | No data available |
| urea | No data available | 292 | No data available | 292 |
| bronopol (INN) | No data available | No data available | No data available | No data available |

DNEL inhalatory exposure - Consumer (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|-------------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| sodium alkylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium alkylethersulphate | No data available | No data available | No data available | No data available |
| urea | No data available | 125 | No data available | 125 |
| bronopol (INN) | No data available | No data available | No data available | No data available |

Environmental exposure

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Environmental exposure - PNEC

| Ingredient(s) | Surface water, fresh (mg/l) | Surface water, marine (mg/l) | Intermittent (mg/l) | Sewage treatment plant (mg/l) |
|-------------------------------|-----------------------------|------------------------------|---------------------|-------------------------------|
| sodium alkylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium alkylethersulphate | No data available | No data available | No data available | No data available |
| urea | 0.047 | No data available | No data available | No data available |
| bronopol (INN) | 0.01 | 0.0008 | 0.0025 | 0.43 |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|-------------------------------|------------------------------|--------------------------|-------------------|--------------------------|
| sodium alkylbenzenesulphonate | No data available | No data available | No data available | No data available |
| sodium alkylethersulphate | No data available | No data available | No data available | No data available |
| urea | No data available | No data available | No data available | No data available |
| bronopol (INN) | 0.041 | 0.00328 | 0.5 | No data available |

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2.

If available, please refer to the product information sheet for application and handling instructions.

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets

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

Personal protective equipment

Eye / face protection: Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product.
Hand protection: 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 (%): 0.5

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

Personal protective equipment

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

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, Medium, Green
Odour: Slightly perfumed
Odour threshold: Not applicable
pH: ≈ 5 (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) |
|-------------------------------|-----------------------------------|------------------|----------------------------|
| sodium alkylbenzenesulphonate | No data available | | |
| sodium alkylethersulphate | > 100 | Method not given | |
| urea | Product decomposes before boiling | | 1013 |
| bronopol (INN) | No data available | | |

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Method / remark

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

Substance data, flammability or explosive limits, if available:

Method / remark

Vapour pressure: Not determined

Substance data, vapour pressure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|-------------------------------|-------------------|-------------------|------------------|
| sodium alkylbenzenesulphonate | No data available | | |
| sodium alkylethersulphate | No data available | | |
| urea | Negligible | | |
| bronopol (INN) | 0.0051 | OECD 104 (EU A.4) | 20 |

Method / remark

Vapour density: Not determined
Relative density: 1.04 g/cm³ (20 °C)
Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|-------------------------------|-------------------|------------------|------------------|
| sodium alkylbenzenesulphonate | No data available | | |
| sodium alkylethersulphate | Soluble | | 20 |
| urea | 1080 | Method not given | 20 |
| bronopol (INN) | 280 | Method not given | 23 |

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

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: ≈ 1000 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:

| Ingredient(s) | Value | Method | Temperature (°C) |
|----------------|------------|------------------|------------------|
| bronopol (INN) | 9.56 (pKa) | Method not given | 21 |

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

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Mixture data:

Relevant calculated ATE(s):

Skin irritation and corrosivity

Result: Not corrosive or irritant Method: Weight of evidence

Eye irritation and corrosivity

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) |
|-------------------------------|------------------|-------------------|---------|-------------------|-------------------|
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium alkylethersulphate | LD ₅₀ | > 2000 | Rat | OECD 401 (EU B.1) | |
| urea | LD ₅₀ | 11500 | Mouse | Method not given | |
| bronopol (INN) | LD ₅₀ | 305 | Rat | OECD 401 (EU B.1) | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-------------------------------|------------------|-------------------|---------|-------------------|-------------------|
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium alkylethersulphate | LD ₅₀ | > 2000 | Rat | OECD 402 (EU B.3) | |
| urea | | No data available | | | |
| bronopol (INN) | LD ₅₀ | > 2000 | Rat | OECD 402 (EU B.3) | |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------|----------|-------------------|---------|--------|-------------------|
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium alkylethersulphate | | No data available | | | |
| urea | | No data available | | | |
| bronopol (INN) | | No data available | | | |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|-------------------|---------|-------------------|---------------|
| sodium alkylbenzenesulphonate | No data available | | | |
| sodium alkylethersulphate | Irritant | Rabbit | OECD 404 (EU B.4) | |
| urea | No data available | | | |
| bronopol (INN) | Irritant | Rabbit | OECD 404 (EU B.4) | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|-------------------|---------|-------------------|---------------|
| sodium alkylbenzenesulphonate | No data available | | | |
| sodium alkylethersulphate | Severe damage | Rabbit | OECD 405 (EU B.5) | |
| urea | No data available | | | |
| bronopol (INN) | Severe damage | Rabbit | Method not given | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|-------------------|---------|--------|---------------|
| sodium alkylbenzenesulphonate | No data available | | | |
| sodium alkylethersulphate | No data available | | | |
| urea | No data available | | | |
| bronopol (INN) | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|-------------------------------|-------------------|------------|--------------------------------------|-------------------|
| sodium alkylbenzenesulphonate | No data available | | | |
| sodium alkylethersulphate | Not sensitising | Guinea pig | OECD 406 (EU B.6) / GPMT Read across | |

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|----------------|-------------------|--|--|--|
| urea | No data available | | | |
| bronopol (INN) | No data available | | | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|-------------------|---------|--------|---------------|
| sodium alkylbenzenesulphonate | No data available | | | |
| sodium alkylethersulphate | No data available | | | |
| urea | No data available | | | |
| bronopol (INN) | 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 alkylbenzenesulphonate | No data available | | No data available | |
| sodium alkylethersulphate | No evidence for mutagenicity, negative test results | OECD 476 (Chinese Hamster Ovary) | No evidence for mutagenicity, negative test results | |
| urea | No data available | | No data available | |
| bronopol (INN) | No evidence for mutagenicity, negative test results | Method not given | No data available | |

Carcinogenicity

| Ingredient(s) | Effect |
|-------------------------------|--|
| sodium alkylbenzenesulphonate | No data available |
| sodium alkylethersulphate | No evidence for carcinogenicity, negative test results |
| urea | No data available |
| bronopol (INN) | 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 |
|-------------------------------|----------|------------------------|--------------------|---------|---------------------------|---------------|--|
| sodium alkylbenzenesulphonate | | | No data available | | | | |
| sodium alkylethersulphate | NOAEL | Developmental toxicity | 86.6 | Rat | OECD 416, (EU B.35), oral | | No known significant effects or critical hazards |
| urea | | | No data available | | | | |
| bronopol (INN) | | | No data available | | | | |

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|-------------------------------|----------|--------------------|---------|------------------|----------------------|--------------------------------------|
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium alkylethersulphate | NOAEL | 50 | | Method not given | | |
| urea | | No data available | | | | |
| bronopol (INN) | | No data available | | | | |

Sub-chronic dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|-------------------------------|----------|--------------------|---------|------------------|----------------------|--------------------------------------|
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium alkylethersulphate | NOEL | > 12.5 | | Method not given | | |
| urea | | No data available | | | | |
| bronopol (INN) | | 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 |
|-------------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium alkylethersulphate | | No data available | | | | |
| urea | | No data available | | | | |

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|----------------|--|-------------------|--|--|--|
| bronopol (INN) | | 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 alkylbenzenesulphonate | | | No data available | | | | | |
| sodium alkylethersulphate | | | No data available | | | | | |
| urea | | | No data available | | | | | |
| bronopol (INN) | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|-------------------------------|-------------------|
| sodium alkylbenzenesulphonate | No data available |
| sodium alkylethersulphate | No data available |
| urea | No data available |
| bronopol (INN) | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|-------------------------------|-------------------|
| sodium alkylbenzenesulphonate | No data available |
| sodium alkylethersulphate | No data available |
| urea | No data available |
| bronopol (INN) | 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) |
|-------------------------------|------------------|-------------------|----------------------------|-----------------------|-------------------|
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium alkylethersulphate | LC ₅₀ | 1 - 10 | <i>Brachydanio rerio</i> | OECD 203, semi-static | 96 |
| urea | LC ₅₀ | > 6810 | <i>Leuciscus idus</i> | Method not given | 96 |
| bronopol (INN) | LC ₅₀ | 41.2 | <i>Oncorhynchus mykiss</i> | Method not given | 96 |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------|------------------|-------------------|-----------------------------|------------------|-------------------|
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium alkylethersulphate | EC ₅₀ | 1 - 10 | <i>Daphnia</i> | OECD 202, static | 48 |
| urea | EC ₅₀ | > 10000 | <i>Daphnia magna Straus</i> | Method not given | 24 |
| bronopol (INN) | EC ₅₀ | 1.4 | <i>Not specified</i> | Method not given | 48 |

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------|------------------|-------------------|--------------------------------|-------------------|-------------------|
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium alkylethersulphate | EC ₅₀ | 7.5 | <i>Not specified</i> | DIN 38412, Part 9 | 72 |
| urea | | > 10000 | <i>Scenedesmus quadricauda</i> | Method not given | |
| bronopol (INN) | EC ₅₀ | 0.4 - 2.8 | <i>Not specified</i> | Method not given | 72 |

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Aquatic short-term toxicity - marine species

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|-------------------------------|----------|-------------------|---------|--------|----------------------|
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium alkylethersulphate | | No data available | | | |
| urea | | No data available | | | |
| bronopol (INN) | | No data available | | | |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|-------------------------------|------------------|-------------------|---------------------------|------------------|---------------|
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium alkylethersulphate | EC ₁₀ | 300 - 500 | | Method not given | 0.5 hour(s) |
| urea | | > 10000 | <i>Pseudomonas putida</i> | Method not given | 16 hour(s) |
| bronopol (INN) | EC ₂₀ | 2 | <i>Activated sludge</i> | OECD 209 | 150 minute(s) |

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-------------------------------|------------------|-------------------|----------------------------|------------------|---------------|------------------|
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium alkylethersulphate | NOEC | 0.1 - 0.13 | <i>Not specified</i> | Method not given | 365 day(s) | |
| urea | | No data available | | | | |
| bronopol (INN) | EC ₅₀ | 39.1 | <i>Oncorhynchus mykiss</i> | OECD 210 | 49 hour(s) | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-------------------------------|----------|-------------------|----------------------|------------------------|---------------|------------------|
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium alkylethersulphate | NOEC | 0.18 - 0.72 | <i>Daphnia sp.</i> | Method not given | 21 day(s) | |
| urea | | No data available | | | | |
| bronopol (INN) | NOEC | 0.27 | <i>Daphnia magna</i> | OECD 211, flow-through | 21 day(s) | |

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

| Ingredient(s) | Endpoint | Value (mg/kg dw sediment) | Species | Method | Exposure time (days) | Effects observed |
|-------------------------------|----------|---------------------------|---------|------------------|----------------------|------------------|
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium alkylethersulphate | NOEC | 0.72 - 0.9 | | Method not given | 3 | |
| urea | | No data available | | | | |
| bronopol (INN) | | 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 |
|----------------|------------------|-----------------------|-----------------------|----------|----------------------|------------------|
| bronopol (INN) | LD ₅₀ | > 500 | <i>Eisenia fetida</i> | OECD 207 | 14 | |

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:

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Abiotic degradation - hydrolysis, if available:

| Ingredient(s) | Half-life time in fresh water | Method | Evaluation | Remark |
|----------------|-------------------------------|----------|----------------------|--------|
| bronopol (INN) | No data available | OECD 111 | Rapidly hydrolysible | |

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|-------------------------------|----------|-------------------|---------------------|-----------|-----------------------|
| sodium alkylbenzenesulphonate | | | | | No data available |
| sodium alkylethersulphate | | | > 60 % in 28 day(s) | OECD 301B | Readily biodegradable |
| urea | | | | | Readily biodegradable |
| bronopol (INN) | | | | | 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 |
|-------------------------------|-------------------|------------------|-----------------------------------|--------|
| sodium alkylbenzenesulphonate | No data available | | | |
| sodium alkylethersulphate | 0.95 - 3.9 | Method not given | Low potential for bioaccumulation | |
| urea | -1.09 | | No bioaccumulation expected | |
| bronopol (INN) | 0.18 | Method not given | No bioaccumulation expected | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|-------------------------------|-------------------|---------|--------|------------|--------|
| sodium alkylbenzenesulphonate | No data available | | | | |
| sodium alkylethersulphate | No data available | | | | |
| urea | No data available | | | | |
| bronopol (INN) | 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 |
|-------------------------------|--------------------------------|-------------------------------------|--------|--------------------|--|
| sodium alkylbenzenesulphonate | No data available | | | | |
| sodium alkylethersulphate | No data available | | | | |
| urea | No data available | | | | Potential for mobility in soil, soluble in water |
| bronopol (INN) | No data available | | | | |

12.5 Results of PBT and vPvB assessment

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Waste from residues / unused products:**

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

European Waste Catalogue:

20 01 29* - detergents containing dangerous substances.

Empty packaging**Recommendation:**

Dispose of observing national or local regulations.

Suitable cleaning agents:

Water, if necessary with cleaning agent.

SECTION 14: Transport information

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ADR, RID, ADN, IMO/IMDG, ICAO/IATA

14.1 UN number: Non-dangerous goods

14.2 UN proper shipping name: Non-dangerous goods

14.3 Transport hazard class(es): Non-dangerous goods

Class: -

14.4 Packing group: Non-dangerous goods

14.5 Environmental hazards: Non-dangerous goods

14.6 Special precautions for user: Non-dangerous goods

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: The product is not transported in bulk tankers.

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

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

Ingredients according to EC Detergents Regulation 648/2004

anionic surfactants

5 - 15%

perfumes, Citral, Limonene, 2-Bromo-2-Nitropropane-1,3-Diol

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*

MSDS code: MSDS3930

Version: 10.0

Revision: 2014-10-08

Reason for revision:

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

Classification procedure

The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Full text of the R, H and EUH phrases mentioned in section 3:

- H302 - Harmful if swallowed.
- H312 - Harmful in contact with skin.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H335 - May cause respiratory irritation.
- H400 - Very toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.
- R21 - Harmful in contact with skin.
- R22 - Harmful if swallowed.
- R37 - Irritating to respiratory system.
- R38 - Irritating to skin.
- R41 - Risk of serious damage to eyes.
- 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